```
File 16:Gale Group PROMT(R) 1990-2005/Jul 21
         (c) 2005 The Gale Group
File 148:Gale Group Trade & Industry DB 1976-2005/Jul 22
         (c) 2005 The Gale Group
File 160: Gale Group PROMT(R) 1972-1989
         (c) 1999 The Gale Group
File 275:Gale Group Computer DB(TM) 1983-2005/Jul 22
         (c) 2005 The Gale Group
File 621:Gale Group New Prod. Annou. (R) 1985-2005/Jul 22
         (c) 2005 The Gale Group
File 636:Gale Group Newsletter DB(TM) 1987-2005/Jul 21
         (c) 2005 The Gale Group
File
       9:Business & Industry(R) Jul/1994-2005/Jul 21
         (c) 2005 The Gale Group
File
      15:ABI/Inform(R) 1971-2005/Jul 22
         (c) 2005 ProQuest Info&Learning
File
      20:Dialog Global Reporter 1997-2005/Jul 22
         (c) 2005 The Dialog Corp.
      95:TEME-Technology & Management 1989-2005/Jun W2
File
         (c) 2005 FIZ TECHNIK
File 476: Financial Times Fulltext 1982-2005/Jul 22
         (c) 2005 Financial Times Ltd
File 610: Business Wire 1999-2005/Jul 21
         (c) 2005 Business Wire.
File 613:PR Newswire 1999-2005/Jul 22
         (c) 2005 PR Newswire Association Inc
File 624:McGraw-Hill Publications 1985-2005/Jul 22
         (c) 2005 McGraw-Hill Co. Inc
File 634:San Jose Mercury Jun 1985-2005/Jul 21
         (c) 2005 San Jose Mercury News
File 810: Business Wire 1986-1999/Feb 28
         (c) 1999 Business Wire
File 813:PR Newswire 1987-1999/Apr 30
         (c) 1999 PR Newswire Association Inc
File
     88:Gale Group Business A.R.T.S. 1976-2005/Jul 21
         (c) 2005 The Gale Group
File 647:CMP Computer Fulltext 1988-2005/Jul W1
         (c) 2005 CMP Media, LLC
File 674:Computer News Fulltext 1989-2005/Jul W3
         (c) 2005 IDG Communications
File 696:DIALOG Telecom. Newsletters 1995-2005/Jul 21
         (c) 2005 The Dialog Corp.
File 369: New Scientist 1994-2005/May W3
         (c) 2005 Reed Business Information Ltd.
File 484: Periodical Abs Plustext 1986-2005/Jul W3
         (c) 2005 ProQuest
File 370:Science 1996-1999/Jul W3
         (c) 1999 AAAS
File 553: Wilson Bus. Abs. FullText 1982-2004/Dec
         (c) 2005 The HW Wilson Co
Set
        Items
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S1
        48731
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S2
      7134200
                COPYRIGHT? OR INTELLECTUAL() PROPERT???
S3
        17734
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             CODE OR CODES OR CODING? OR CIPHER? OR CYPHER? OR ENCRYPT? OR
             ENCOD?)
S4
                 (S1 OR S2) (5N) (RE() ENCRYPT? OR REENCRYPT?)
S<sub>5</sub>
        83280
                 (TRANSFER? OR DISTRIBUT? OR DOWNLOAD? OR UPLOAD? OR PLAYBA-
             CK OR PLAY()BACK OR (UP OR DOWN)()LOAD?)(5N)(CRYPT? OR ENCIPH?
              OR ENCYPH? OR DECRYPT? OR CODE OR CODES OR CODING? OR CIPHER?
```

#### OR CYPHER? OR ENCRYPT? OR ENCOD?) S6 318422 (MULTI OR MULTIPLE OR MANY OR SEVERAL OR PLURAL? OR NUMERO-US) (5N) KEY? ? S7 98134 (FIRST OR PRIMARY OR SECOND?) (3N) KEY? ? S8 3311 SECRET()KEY? ? S9 411 AU=(SAITO, M? OR SAITO M?) S10 99518 S3 OR S4 OR S5 S11 307 S10(S)(S6 OR S7) S12 9 S11(S)S8 S13 1 S12 NOT PY>1994 S14 18 S11 NOT PY>1994 S15 17 S14 NOT S13 S16 17 S15 NOT PY>1994 S17 15 RD (unique items) S18 0 S9(S)(S3 OR S4)

13/3,K/1 (Item 1 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
(c) 2005 ProQuest Info&Learning. All rts. reserv.

00759575 94-08967

A public key extension to the Common Cryptographic Architecture Le, An V; Matyas, Stephen M; Johnson, Donald B; Wilkins, John D IBM Systems Journal v32n3 PP: 461-485 1993 ISSN: 0018-8670 JRNL CODE: ISY WORD COUNT: 16326

 $\dots$ TEXT: cannot be accomplished without involving the KDC each time an initial key is to be **distributed** .

With public key **cryptography**, electronic **distribution** of initial keys is more feasible and economical using a simple, widely known protocol. When ...

...been proposed for certifying and registering public keys, and for improving the integrity of the <code>key</code> distribution process.(17,20) <code>Many</code> of these methods require the involvement of trusted certification centers or authentication seers whose roles are similar to those of key distribution centers in <code>secret - key -</code>based key distribution. Even with that requirement, public-key-based key distribution is still considered more advantageous than <code>secret - key -</code>based key distribution.(17,18,21) The advantages are these. <code>First</code>, with public- <code>key -</code>based key distribution, the certification center or the authentication server can be off line and key distribution is still possible. In contrast, with <code>secret - key -</code>based key distribution, on-line access to a key distribution center is usually needed each time the communicating parties establish an initial keying relationship. <code>Second</code>, in public- <code>key -</code>based key distribution, the degree of trust placed on the central authority (e.g., a...

...center) is generally less than the degree of trust placed on the central authority in **secret** - **key** -based key distribution. This is because with distributed public keys, one needs to be concerned only with their integrity, whereas with distributed **secret keys** (i.e., DEA keys), one is concerned with both the secrecy and the integrity of...

17/3,K/1 (Item 1 from file: 16) DIALOG(R) File 16: Gale Group PROMT(R)

(c) 2005 The Gale Group. All rts. reserv.

02799487 Supplier Number: 43759153 (USE FORMAT 7 FOR FULLTEXT) The industry goes 'back to school'

National Home Center News, v0, n0, p23

April 5, 1993

Language: English Record Type: Fulltext

Document Type: Magazine/Journal; Trade

Word Count: 1112

being sponsored by a leading home center chain, which he also declined to reveal, and several key manufacturers, distributors and bar- code scanning equipment vendors in the wood products industry. To gather information about bar coding, Vlosky...

#### 17/3,K/2 (Item 1 from file: 148)

DIALOG(R) File 148: Gale Group Trade & Industry DB (c) 2005 The Gale Group. All rts. reserv.

SUPPLIER NUMBER: 16270847 (USE FORMAT 7 OR 9 FOR FULL TEXT) 07576164 CyberSource sells software on Internet. (CyberSource Corp's software.net service)

Rodriguez, Karen

InfoWorld, v16, n47, p53(1)

Nov 21, 1994

ISSN: 0199-6649 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT; ABSTRACT

WORD COUNT: 442 LINE COUNT: 00037

customer's PC. For security, encryption is used in transmitting programs over the Internet; customers first download the password key to decrypt , then the software.

Users can preview software programs by downloading product demonstrations. The service also...

#### 17/3,K/3 (Item 1 from file: 160)

DIALOG(R)File 160:Gale Group PROMT(R)

(c) 1999 The Gale Group. All rts. reserv.

01619204

WESTERN DIGITAL'S NEW LOW-COST, LOW-POWER DATA ENCRYPTION DEVICE THOROUGHLY SECURES DATA.

NEWS RELEASE April 20, 1987 p. 11

... It will be used in any applications that require on-line, end-to-end data encryption / decryption such as electronic funds transfers , secure brokerage transactions and automatic teller data transfers. The WD20C03 has two modes of operation...

... decrypt the data. In Cipher Block Chaining mode, the WD20C03 uses the same 56-bit key but adds a second variable called an initial vector. Both key and user-assigned initial vector are used to...

#### 17/3,K/4 (Item 1 from file: 275)

DIALOG(R) File 275: Gale Group Computer DB(TM) (c) 2005 The Gale Group. All rts. reserv.

01264428 SUPPLIER NUMBER: 07782550

XDOS runs on Unix machines. (product announcement)

Danca, Richard A.

Federal Computer Week, v3, n34, p38(2)

August 21, 1989

DOCUMENT TYPE: product announcement ISSN: 0893-052X LANGUAGE:

ENGLISH RECORD TYPE: ABSTRACT

...ABSTRACT: a computer-aided software engineering tool called the analyzer to create a key disk that **uploads** the DOS binary **code** into a Unix machine then runs XDOS' converter. Hunter has created **key** disks for **many** popular programs and workstations. The company will license the analyzer.

17/3,K/5 (Item 2 from file: 275)

DIALOG(R) File 275: Gale Group Computer DB(TM) (c) 2005 The Gale Group. All rts. reserv.

01213402 SUPPLIER NUMBER: 04683846 (USE FORMAT 7 OR 9 FOR FULL TEXT) T1 encryption plan protects data. (connectivity section)

Kopeck, Ron

PC Week, v4, n9, pC9(2)

March 3, 1987

ISSN: 0740-1604 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT; ABSTRACT

WORD COUNT: 1498 LINE COUNT: 00124

... the same key at exactly the same time.

The DOD does not permit contractors to **download encryptor** / **decryptor** keys; units must be loaded with keys directly. Said Kirby Dickson, telecommunications security manager for have **many** individuals know the **keys** or how the keys are changed.

Also, Hughes was concerned that incorrect key definitions between...

17/3,K/6 (Item 1 from file: 636)

DIALOG(R) File 636: Gale Group Newsletter DB(TM)

(c) 2005 The Gale Group. All rts. reserv.

01881357 Supplier Number: 43252676 (USE FORMAT 7 FOR FULLTEXT)

Background on Mass-Market Encryption Software Issue

Export Control News, v6, n8, pN/A

August 27, 1992

Language: English Record Type: Fulltext

Document Type: Newsletter; Trade

Word Count: 479

 $\dots$  nothing to restrict its availability abroad but instead diminishes the international competitiveness of US companies.

**Several key** software manufacturers, such as Microsoft, worked through SPA to lobby Congress to include an amendment in H.R. 3489, a bill to reauthorize the EAA, that would mandate the **transfer** of mass-market **encryption** software to the jurisdiction of the Commerce Department. Before Congress adjourned, the bill was virtually...

17/3,K/7 (Item 2 from file: 636)

DIALOG(R) File 636: Gale Group Newsletter DB(TM)

(c) 2005 The Gale Group. All rts. reserv.

01012165 Supplier Number: 40335552 (USE FORMAT 7 FOR FULLTEXT)

Most companies fail software test

Advanced Military Computing, v4, n7, pN/A

March 28, 1988

Language: English Record Type: Fulltext

Document Type: Newsletter; Trade

Word Count: 849

... an aside. He noted the management of the maturation of Ada compilers will be a **key** task for the Ada community. **Many** compilers have come under fire for being too slow and generating poor **code**.

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17/3,K/8 (Item 1 from file: 15)

DIALOG(R)File 15:ABI/Inform(R)

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00773318 94-22710

Placement of cryptographic key distribution within OSI: Design alternatives and assessment

Fumy, Walter; Leclerc, Matthias Computer Networks & ISDN Systems v26n2 PP: 217-225 Oct 1993 ISSN: 0376-5075 JRNL CODE: CNI

...ABSTRACT: key management is to provide procedures for handling cryptographic keying material to be used by **cryptographic** mechanisms. Even though **many key distribution** protocols have been designed, little attention has been devoted to the question of how those...

17/3,K/9 (Item 2 from file: 15)

DIALOG(R)File 15:ABI/Inform(R)

(c) 2005 ProQuest Info&Learning. All rts. reserv.

00609491 92-24594

Retailers, Manufacturers Applaud Quick Response

Hoffman, Thomas

Computerworld v26n15 PP: 15 Apr 13, 1992

ISSN: 0010-4841 JRNL CODE: COW

WORD COUNT: 503

...TEXT: 500 million.

MANY REWARDS

Partnering companies have been able to maximize Quick Response by using several key technologies, including electronic data interchange (EDI), electronic funds transfer, electronic payments and various bar-coding and scanning technologies. Retailers benefit from lower costs, reduced inventories, streamlined ordering and receiving processes...

17/3,K/10 (Item 3 from file: 15)

DIALOG(R)File 15:ABI/Inform(R)

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00527040 91-01384

"Do-It-Yourself" Cryptography

Carroll, John M.

Computers & Security v9n7 PP: 613-619 Nov 1990

ISSN: 0167-4048 JRNL CODE: CSC

...ABSTRACT: CRYPTO-LEGGO (CLEG), a stream cipher, may be an inexpensive alternative to using the Data Encryption Standard (DES), chips distributed under the Commercial Communications Security Endorsement Program, or products from vendors with close ties to...

...by adding or removing program modules without altering their essential formats. The ciphers use so **many keys** that each implementation is a distinct cipher system. Tests suggest that either cipher can provide...

# 17/3,K/11 (Item 4 from file: 15)

DIALOG(R)File 15:ABI/Inform(R)

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00412879 88-29712

## Small Switches with Big Features Face Full Market

Hunter, John

Network World v5n29 PP: 1, 41-43, 51-52 Jul 18, 1988

ISSN: 0887-7661 JRNL CODE: NWW

...ABSTRACT: digital network (ISDN). Pricing wars are expected to shake out weaker competitors. Hybrid switches combine **many** features of **key** systems with the advanced functionality of PBXs and are appealing as a low-cost solution...

...will be offering networking PBXs. Meanwhile, many vendors have responded to user needs with account **coding** and fairly powerful automatic call **distribution**. Observers note that PBXs have become commodity-like, and prices are expected to fall soon.

### 17/3,K/12 (Item 1 from file: 810)

DIALOG(R) File 810: Business Wire

(c) 1999 Business Wire . All rts. reserv.

0001022 BW170

OAK INDUSTRIES: Closes \$23,000,000 sale of Sigma Units to Maclean Hunter

January 15, 1986

Byline:

Business Editors

...date,

Sigma provies to be extremely reliable and provides superior signal security.

Sigma employs audio encryption utilizing a multi-level key distribution technique and encrypts video decoding commands. The advanced technology of the Sigma product line from Oak is far...

## 17/3,K/13 (Item 1 from file: 88)

DIALOG(R) File 88: Gale Group Business A.R.T.S.

(c) 2005 The Gale Group. All rts. reserv.

03377816 SUPPLIER NUMBER: 16504690

Sylvia Keys

22-Jul-05 02:39 PM

Trust in the new information age.

Maher, David P.

AT & T Technical Journal, v73, n5, p9(8)

Sept-Oct, 1994

ISSN: 8756-2324 LANGUAGE: English RECORD TYPE: Abstract

... ABSTRACT: must guarantee authenticity of identity, confidentiality, integrity, validity of remittances and service availability. Digital signatures, encryption systems and certificate-based key distribution systems can solve many of these problems.

17/3,K/14 (Item 2 from file: 88)

DIALOG(R) File 88: Gale Group Business A.R.T.S.

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SUPPLIER NUMBER: 03054247

Another promising code falls; a code that looked too good to be true has a fatal weakness and now can be broken in a few seconds.

Kolata, Gina

Science, v222, p1224(1) Dec 16, 1983

CODEN: SCIEAS ISSN: 0036-8075 LANGUAGE: English

RECORD TYPE: Fulltext

WORD COUNT: 851 LINE COUNT: 00081

the discrete exponentials code unsatisfactory for practical use. At Mitre, computer scientists were using the code to distribute encoding keys for a more traditional cryptographic system, the DES, that was used to scramble messages...

...the discrete exponentials code is 127 bits and it takes, says Schanning, less than 10 seconds to exchange DES keys with it. "If we had to go to 241 bits, it would take minutes and...

17/3,K/15 (Item 1 from file: 484)

DIALOG(R) File 484: Periodical Abs Plustext (c) 2005 ProQuest. All rts. reserv.

00919792

Schrodinger's Catflap

Stewart, Ian

Nature (GNAA), v353 n6343, p384-385, p.2

Oct 3, 1991

ISSN: 0028-0836 JOURNAL CODE: GNAA

DOCUMENT TYPE: News

LANGUAGE: English RECORD TYPE: Abstract

LENGTH: Long (31+ col inches)

ABSTRACT: Quantum cryptography, an emerging science, shows how quantum theory can be used to guarantee secure distribution of a cryptographic key . Several recent developments in the field are discussed.

```
File 256:TecInfoSource 82-2005/Jun
         (c) 2005 Info.Sources Inc
File
       2:INSPEC 1969-2005/Jul W2
         (c) 2005 Institution of Electrical Engineers
File
      35: Dissertation Abs Online 1861-2005/Jun
         (c) 2005 ProQuest Info&Learning
File
      65:Inside Conferences 1993-2005/Jul W3
         (c) 2005 BLDSC all rts. reserv.
File
      99: Wilson Appl. Sci & Tech Abs 1983-2005/Jun
         (c) 2005 The HW Wilson Co.
File 583: Gale Group Globalbase (TM) 1986-2002/Dec 13
         (c) 2002 The Gale Group
File 474: New York Times Abs 1969-2005/Jul 21
         (c) 2005 The New York Times
File 475: Wall Street Journal Abs 1973-2005/Jul 21
         (c) 2005 The New York Times
File
       8:Ei Compendex(R) 1970-2005/Jul W2
         (c) 2005 Elsevier Eng. Info. Inc.
File
      94:JICST-EPlus 1985-2005/May W5
         (c) 2005 Japan Science and Tech Corp(JST)
File
       6:NTIS 1964-2005/Jul W2
         (c) 2005 NTIS, Intl Cpyrght All Rights Res
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
         (c) 1998 Inst for Sci Info
      34:SciSearch(R) Cited Ref Sci 1990-2005/Jul W3
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       336777
                COPYRIGHT? OR INTELLECTUAL() PROPERT???
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         1466
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             CODE OR CODES OR CODING? OR CIPHER? OR CYPHER? OR ENCRYPT? OR
             ENCOD?)
S4
            'n
                 (S1 OR S2) (5N) (RE() ENCRYPT? OR REENCRYPT?)
S5
        29108
                 (TRANSFER? OR DISTRIBUT? OR DOWNLOAD? OR UPLOAD? OR PLAYBA-
             CK OR PLAY() BACK OR (UP OR DOWN) () LOAD?) (5N) (CRYPT? OR ENCIPH?
              OR ENCYPH? OR DECRYPT? OR CODE OR CODES OR CODING? OR CIPHER?
              OR CYPHER? OR ENCRYPT? OR ENCOD?)
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        22044
             US) (5N) KEY? ?
S7
                (FIRST OR PRIMARY OR SECOND?) (3N) KEY? ?
         6482
         3069
S8
                SECRET()KEY? ?
S9
        20758
                AU=(SAITO, M? OR SAITO M?)
S10
        30504
                S3 OR S5
S11
          172
                S10 AND (S6 OR S7)
                S11 AND S8
S12
           29
S13
            4
                S12 NOT PY>1994
S14
            0
                S9 AND S3
```

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(Item 1 from file: 8)
DIALOG(R) File
               8:Ei Compendex(R)
(c) 2005 Elsevier Eng. Info. Inc. All rts. reserv.
           E.I. No: EIP94041266443
  Title: Bulk encryption algorithm for use with RSA
  Author: Sewell, R.F.
  Source: Electronics Letters v 29 n 25 Dec 9 1993. p 2183-2185
  Publication Year: 1993
  CODEN: ELLEAK
                 ISSN: 0013-5194
  Language: English
  Document Type: JA; (Journal Article) Treatment: T; (Theoretical)
  Journal Announcement: 9406W2
  Abstract: The public key cryptosystem known as RSA is widely presumed to
be secure but in software implementations is slow and even in hardware
implementations encryption with a general 512 bit exponent runs only at
tens of kilobits per second. Due to this, use of a second , fast, secret
key , cryptosystem such as DES as the bulk encryption method is common
while the session key for the system is transferred using RSA. Use of two
encryption systems increases the security risk as breaking either RSA or
DES is sufficient to obtain the knowledge of the plaintext thus it is
desirable to use a fast secret - key bulk encryption algorithm whose
security can be demonstrably related to that of RSA. This paper presents
discussions about a proposed system designated as QS to achieving this
goal. 24 Refs.
  Descriptors: *Cryptography; Information theory; Security of data;
Computer software; Algorithms; Computer hardware; Encoding (symbols);
Data transfer; Data communication systems
  Identifiers: Bulk encryption algorithm; Cryptosystem; Secret
Cryptanalytic activity; Hardware encryption; Quisquater and Couvreur method
; Session key
 Classification Codes:
  716.1 (Information & Communication Theory); 723.2 (Data Processing);
723.1 (Computer Programming); 722.3 (Data Communication, Equipment &
Techniques)
  716 (Radar, Radio & TV Electronic Equipment); 723 (Computer Software);
722 (Computer Hardware)
  71 (ELECTRONICS & COMMUNICATIONS); 72 (COMPUTERS & DATA PROCESSING)
13/5/2
            (Item 2 from file: 8)
DIALOG(R)File
              8:Ei Compendex(R)
(c) 2005 Elsevier Eng. Info. Inc. All rts. reserv.
03664126
          E.I. No: EIP93050804067
  Title: On the design of conference key distribution systems for the
broadcasting networks
  Author: Laih, Chi-Sung; Yen, Sung-Ming
  Corporate Source: Nat Cheng Kung Univ, Tainan, Taiwan
  Conference Title: Proceedings of the 12th Annual Joint Conference of the
IEEE Computer and Communications Societies - IEEE INFOCOM '93
  Conference
              Location: San
                               Francisco, CA,
                                                         Conference Date:
                                                   USA
19930330-19930401
  E.I. Conference No.: 18536
  Source: Proceedings - IEEE INFOCOM v 3 1993. Publ by IEEE, IEEE Service
Center, Piscataway, NJ, USA. p 1406-1413
  Publication Year: 1993
  CODEN: PINFEZ
                 ISSN: 0743-166X
                                  ISBN: 0-8186-3580-0
  Language: English
  Document Type: CA; (Conference Article) Treatment: T; (Theoretical); A;
```

(Applications)

Journal Announcement: 9308W4

Abstract: There are two important parts in the design of modern cryptographic systems. The first part is the design of cryptosystems. The other is the design of key distribution systems. The former constitutes the main portion of data protection operation while the latter dominates the soul of the cryptosystem, i.e., the encryption and decryption keys. In this paper, we propose a design methodology of conference - key distribution system based on the threshold scheme for the broadcasting networks. We show that if a conference chairman can share a **secret** 'key with each of the other conference participants then any threshold scheme can be used to construct a conference - key distribution system (CKDS). Since there already exist many ID - based key distribution systems for two users to share a common **secret** key, we can therefore easily construct the ID - based CKDS for the broadcasting networks. (Author abstract) 17 Refs.

Descriptors: \*Cryptography; Broadcasting; Security of data; Information theory

Identifiers: Key distribution systems; Broadcasting networks; Data protection; Encryption keys; Decryption keys

Classification Codes:

723.5 (Computer Applications); 716.1 (Information & Communication Theory)

723 (Computer Software); 716 (Radar, Radio & TV Electronic Equipment)
72 (COMPUTERS & DATA PROCESSING); 71 (ELECTRONICS & COMMUNICATIONS)

# 13/5/3 (Item 3 from file: 8)

DIALOG(R)File 8:Ei Compendex(R)

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02837394 E.I. Monthly No: EIM8912-048641

Title: Authenticated group key distribution scheme for a large distributed network.

Author: Harn, Lein; Kiesler, Thomas

Corporate Source: Univ of Missouri, Kansas City, MO, USA

Conference Title: Proceedings: 1989 IEEE Symposium on Security and Privacy

Conference Location: Oakland, CA, USA Conference Date: 19890501

Sponsor: IEEE, Technical Committee on Security and Privacy, New York, NY, USA; Int Assoc for Cryptologic Research

E.I. Conference No.: 12565

Source: Proceedings of the Symposium on Security and Privacy May 1989. Publ by IEEE, IEEE Service Center, Piscataway, NJ, USA. Available from IEEE Service Cent (cat n 89CH2703-7), Piscataway, NJ, USA. p 300-309

Publication Year: 1989

CODEN: PSSPEO Language: English

Document Type: PA; (Conference Paper) Treatment: G; (General Review); T; (Theoretical)

Journal Announcement: 8912

Abstract: The authors propose a decentralized key distribution scheme. In this scheme, there are as **many** local **key** centers as needed and each user needs to select a key center at which to register when first joining the network. The most significant feature of the method is that each center needs only a single **secret key**. All personal keys that it needs for delivering encrypted keys to groups of users can be derived from this single key through a one-way function. 14 Refs.

Descriptors: \*DATA PROCESSING--\*Security of Data; COMPUTER SYSTEMS, DIGITAL--Distributed; MATHEMATICAL MODELS; COMPUTER NETWORKS

Identifiers: AUTHENTICATION; DECENTRALIZED KEY DISTRIBUTION; ENCRYPTED KEYS

Classification Codes:

723 (Computer Software)

72 (COMPUTERS & DATA PROCESSING)

### 13/5/4 (Item 4 from file: 8)

DIALOG(R) File 8:Ei Compendex(R)

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01848562 E.I. Monthly No: EIM8501-002831

Title: DOES PUBLIC KEY CRYPTOGRAPHY PROVIDE ADEQUATE COMMUNICATION SECURITY?

Author: Desmedt, Y.; Vandewalle, J.; Govaerts, R.

.Corporate Source: Catholic Univ of Louvain, ESAT Lab, Heverlee, Belg

Conference Title: Conference Proceedings - Electronics for National Security.

Conference Location: Brussels, Belg Conference Date: 19830927

Sponsor: Cahners Exposition Group, Des Plaines, IL, USA; Cahners Exposition Group S. A., Guildford, Engl

E.I. Conference No.: 05642

Source: Publ by Interavia Publ Group, Geneva, Switz p 52-59

Publication Year: 1983

Language: English

Document Type: PA; (Conference Paper)

Journal Announcement: 8501

Abstract: One of the major problems in data communication systems protected by classical cryptography is the distribution of the secret keys between all senders and receivers. Such a distribution becomes even impractical in large, especially international networks. The public key algorithm is considered that should solve the problem of key distribution and at the same time provide electronic signatures for documents such as contracts. The idea of public key and its conditions are explained.

Several criticisms on the practical aspects are discussed such as: transmission speed, loosing keys, security. 45 refs.

Descriptors: \*DATA PROCESSING--\*Security of Data; COMPUTERS--Data Communication Systems

Identifiers: PUBLIC KEY CRYPTOGRAPHY; SECRET KEYS; INTERNATIONAL COMMUNICATION NETWORKS; TRANSMISSION SPEED; KEY LOSS; KEY DISTRIBUTION Classification Codes:

723 (Computer Software); 716 (Radar, Radio & TV Electronic Equipment); 718 (Telephone & Line Communications)

72 (COMPUTERS & DATA PROCESSING); 71 (ELECTRONICS & COMMUNICATIONS)

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File 344: Chinese Patents Abs Aug 1985-2005/May
         (c) 2005 European Patent Office
File 347: JAPIO Nov 1976-2005/Feb (Updated 050606)
         (c) 2005 JPO & JAPIO
File 350: Derwent WPIX 1963-2005/UD, UM &UP=200546
         (c) 2005 Thomson Derwent
File 348: EUROPEAN PATENTS 1978-2005/Jul W02
         (c) 2005 European Patent Office
File 349:PCT FULLTEXT 1979-2005/UB=20050721,UT=20050714
         (c) 2005 WIPO/Univentio
File 331:Derwent WPI First View
                                    UD=200546
         (c) 2005 Thomson Derwent
File 371: French Patents 1961-2002/BOPI 200209
         (c) 2002 INPI. All rts. reserv.
Set
        Items
                Description
S1
         2320
                DIGITAL()RIGHT? ? OR DRM OR DIGITAL()RIGHT?()MANAGEMENT
S2
                COPYRIGHT? OR INTELLECTUAL()PROPERT???
      2275225
S3
         7782
                (S1 OR S2) (5N) (CRYPT? OR ENCIPH? OR ENCYPH? OR DECRYPT? OR
             CODE OR CODES OR CODING? OR CIPHER? OR CYPHER? OR ENCRYPT? OR
             ENCOD?)
S4
           28
                 (S1 OR S2) (5N) (RE() ENCRYPT? OR REENCRYPT?)
S5
        45417
                 (TRANSFER? OR DISTRIBUT? OR DOWNLOAD? OR UPLOAD? OR PLAYBA-
             CK OR PLAY()BACK OR (UP OR DOWN)()LOAD?)(5N)(CRYPT? OR ENCIPH?
              OR ENCYPH? OR DECRYPT? OR CODE OR CODES OR CODING? OR CIPHER?
              OR CYPHER? OR ENCRYPT? OR ENCOD?)
        28620
S6
                (MULTI OR MULTIPLE OR MANY OR SEVERAL OR PLURAL? OR NUMERO-
             US) (5N) KEY? ?
S7
        22732
                (FIRST OR PRIMARY OR SECOND?) (3N) KEY? ?
S8
        6789
                SECRET()KEY? ?
S9
        18787
                AU=(SAITO, M? OR SAITO M?)
S10
        52310
                S3 OR S4 OR S5
S11
          358
                S10(3N)(S6 OR S7)
                S11 AND S8
S12
          139
S13
          59
                S12 AND IC=G06F
S14
           56
                S13 NOT (MULTIPLE()ADDRESS?)
                S9 AND (S3 OR S4)
S15
           34
```

14/3,K/1 (Item 1 from file: 347)

DIALOG(R) File 347: JAPIO

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06018908 \*\*Image available\*\*
DATA CONTENTS DISTRIBUTION SYSTEM

PUB. NO.: 10-302008 [JP 10302008 A] PUBLISHED: November 13, 1998 (19981113)

INVENTOR(s): SAITO MAKOTO

APPLICANT(s): MITSUBISHI CORP [000597] (A Japanese Company or Corporation),

JP (Japan)

APPL. NO.: 09-126357 [JP 97126357] FILED: April 30, 1997 (19970430)

INTL CLASS: G06F-017/60; G06F-005/00; G06F-015/00; H04L-009/08

#### ABSTRACT

...work data contents by making a second user decode a ciphered scenario by using a **secret key** and reconstitute the work data contents based on a decoded work scenario...

... presents the digitally signed work program to a copyright management center 8 and requests a **second secret key** for decoding the **ciphered** source data contents component. The **copyright** management center 8 transfers the second **secret key** to the second user in the case that a first user is the appropriate user of the source data contents for which the second **secret key** is requested. Then, the second user decodes the ciphered scenario by using the **secret key** and reconstitutes the work data contents based on the decoded work scenario.

# 14/3,K/2 (Item 1 from file: 350)

DIALOG(R) File 350: Derwent WPIX

(c) 2005 Thomson Derwent. All rts. reserv.

010625430 \*\*Image available\*\* WPI Acc No: 1996-122383/199613

XRPX Acc No: N96-102820

Code key delivery method for delivering code key through public circuit - involves checking random number received from terminal with that

generated in key centre for producing code key from key centre

Patent Assignee: NIPPON TELEGRAPH & TELEPHONE CORP (NITE )
Inventor: KANAI A; MIYAKE N; MORIYASU K; OKUYAMA H; TERAUCHI A

Number of Countries: 002 Number of Patents: 003

Patent Family:

Patent No Kind Date Applicat No Kind Date Week JP 8018552 Α 19960119 JP 95105063 Α 19950428 199613 US 5651066 19970722 US 95431407 А Α 19950428 199735 JP 3348753 B2 20021120 JP 95105063 19950428 Α

Priority Applications (No Type Date): JP 9491857 A 19940428

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

JP 8018552 A 21 H04L-009/06

US 5651066 A 22 H04L-009/00

JP 3348753 B2 21 H04L-009/32 Previous Publ. patent JP 8018552

...Abstract (Basic): the key centre. A decoder (21) in the key centre decodes K3 by using a **secret key** K2d. A coder (22) enciphers a random number K4 by K3 and sends it to...

...Abstract (Equivalent): method of cipher key distribution in a system formed by a key center having a cipher key to be distributed and a plurality of user terminals connected with the key center through a public network, the method comprising...

International Patent Class (Additional): G06F-015/00 ...

14/3,K/3 (Item 1 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
(c) 2005 European Patent Office. All rts. reserv.

01898247

Systems and methods for secure transaction management and electronic rights protection

Systeme und Verfahren zur Verwaltung von gesicherten Transaktionen und zum Schutz von elektronischen Rechten

Systemes et procedes pour gerer des transactions securisees et pour proteger des droits electroniques

PATENT ASSIGNEE:

Ginter, Karl L., 10404 43rd Avenue, Beltsville, Maryland 20705, (US)
Shear, Victor H., 5203 Battery Lane, Bethesda, Maryland 20814, (US)
Spahn, Francis J., 2410 Edwards Avenue, El Cerrito, California 94530,
 (US)

Van Wie, David M., 1250 Lakeside Drive, Sunnyvale, California 94086, (US) LEGAL REPRESENTATIVE:

Smith, Norman Ian et al (36041), fJ CLEVELAND 40-43 Chancery Lane, London WC2A 1JQ, (GB)

PATENT (CC, No, Kind, Date): EP 1531379 A2 050518 (Basic)

APPLICATION (CC, No, Date): EP 2004078195 960213;

PRIORITY (CC, No, Date): US 388107 950213

DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE

RELATED PARENT NUMBER(S) - PN (AN): EP 861461 (EP 96922371) NTERNATIONAL PATENT CLASS: G06F-001/00; G06F-017/60

ABSTRACT WORD COUNT: 151

NOTE:

Figure number on first page: 75

LANGUAGE (Publication, Procedural, Application): English; English; FULLTEXT AVAILABILITY:

Available Text Language Update Word Count

CLAIMS A (English) 200520 173

SPEC A (English) 200520 167172 Total word count - document A 167345

Total word count - document A 167345
Total word count - document B 0

Total word count - document B U
Total word count - documents A + B 167345

INTERNATIONAL PATENT CLASS: G06F-001/00 ...

## ... G06F-017/60

...SPECIFICATION they believe appropriate to their business requirements.

VDE offers an architecture that avoids reflecting specific

distribution biases, administrative and control perspectives, and
content types. Instead, VDE provides a broad-spectrum, fundamentally...

other information in order to, for example, reduce frequency of access by
an SPU to secondary storage 652 and/or for other reasons. Dual ported
external RAM can be particularly effective...which the
metering/transaction management functionality is incorporated).

The third approach is distinct from the first two in that it does not

The third approach is distinct from the **first** two in that it does not incorporate VDE functionality associated with metering/transaction management and...

## 14/3,K/4 (Item 2 from file: 348)

DIALOG(R) File 348: EUROPEAN PATENTS

(c) 2005 European Patent Office. All rts. reserv.

### 01888484

Systems and methods for secure transaction management and electronic rights protection

Systeme und Verfahren zur gesicherten Transaktionsverwaltung und elektronischem Rechtsschutz

Systemes et procedes de gestion de transactions securisees et de protection de droits electroniques

PATENT ASSIGNEE:

ELECTRONIC PUBLISHING RESOURCES, INC., (976840), 460 Oakmead Parkway, Sunnyvale, CA 94086-4708, (US), (Applicant designated States: all) INVENTOR:

Ginter, Karl L., 10404 43rd Avenue, Beltsville, Maryland 20705, (US) Shear, Victor H., 5203 Battery Lane, Bethesda, Maryland 20814, (US) Spahn, Francis J., 2410 Edwards Avenue, El Cerrito, California 94530, (US)

Van Wie, David M., 1780 East 25th Avenue, Eugene, OR 97403, (US) LEGAL REPRESENTATIVE:

Smith, Norman Ian et al (36041), fJ CLEVELAND 40-43 Chancery Lane, London WC2A 1JQ, (GB)

PATENT (CC, No, Kind, Date): EP 1526472 A2 050427 (Basic)

APPLICATION (CC, No, Date): EP 2004078254 960213;

PRIORITY (CC, No, Date): US 388107 950213

DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE

RELATED PARENT NUMBER(S) - PN (AN):

EP 861461 (EP 96922371)

INTERNATIONAL PATENT CLASS: G06F-017/60; G06F-009/46

ABSTRACT WORD COUNT: 151

NOTE:

Figure number on first page: 75

LANGUAGE (Publication, Procedural, Application): English; English; FULLTEXT AVAILABILITY:

Available Text Language Update Word Count

CLAIMS A (English) 200517 355

SPEC A (English) 200517 167222

Total word count - document A 167577

Total word count - document B

Total word count - documents A + B 167577

INTERNATIONAL PATENT CLASS: G06F-017/60 ...

#### ... G06F-009/46

...SPECIFICATION most usage, audit, reporting, payment, and distribution control methods are themselves at least in part encrypted and are executed by the secure subsystem of a VDE installation. Thus, for example, billing...100.

Almost any sort of transaction you can think of can be supported by virtual **distribution** environment 100. A few of **many** examples of transactions that can be supported by virtual distribution environment 100 include:

C home...The subservice concept extends to supporting multiple processors, multiple SPEs 503, multiple HPEs 655, and multiple communications services.

The preferred embodiment ROS 602 provides the following RPC based service providers/requestors...

## 14/3,K/5 (Item 3 from file: 348)

DIALOG(R) File 348: EUROPEAN PATENTS

(c) 2005 European Patent Office. All rts. reserv.

#### 01869029

Systems and methods for secure transaction management and electronic rights protection

Systeme und Verfahren zur gesicherten Transaktionsverwaltung und elektronischem Rechtsschutz

Systemes et procedes de gestion de transactions securisees et de protection de droits electroniques

PATENT ASSIGNEE:

ELECTRONIC PUBLISHING RESOURCES, INC., (976840), 460 Oakmead Parkway, Sunnyvale, CA 94086-4708, (US), (Applicant designated States: all) INVENTOR:

Ginter, Karl L., 10404 43rd Avenue, Beltsville, Maryland 20705, (US)
Shear, Victor H., 5203 Battery Lane, Bethesda, Maryland 20814, (US)
Spahn, Francis J., 2410 Edwards Avenue, El Cerrito, California 94530,
 (US)

Van Wie, David M., 1250 Lakeside Drive, Sunnyvale, California 94086, (US) LEGAL REPRESENTATIVE:

Smith, Norman Ian et al (36041), fJ CLEVELAND 40-43 Chancery Lane, London WC2A 1JQ, (GB)

PATENT (CC, No, Kind, Date): EP 1515216 A2 050316 (Basic)

EP 1515216 A3 050323

APPLICATION (CC, No, Date): EP 2004078194 960213;

```
PRIORITY (CC, No, Date): US 388107 950213
```

DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE

RELATED PARENT NUMBER(S) - PN (AN):

EP 861461 (EP 96922371)

INTERNATIONAL PATENT CLASS: G06F-001/00; G06F-017/60

ABSTRACT WORD COUNT: 144

NOTE:

Figure number on first page: 75C

LANGUAGE (Publication, Procedural, Application): English; English; English FULLTEXT AVAILABILITY:

Available Text Language Update Word Count 276

CLAIMS A (English) 200511

SPEC A (English) 200511 167210

Total word count - document A 167486

Total word count - document B

Total word count - documents A + B 167486

INTERNATIONAL PATENT CLASS: G06F-001/00 ... ... G06F-017/60

... SPECIFICATION they believe appropriate to their business requirements. VDE offers an architecture that avoids reflecting specific distribution biases, administrative and control perspectives, and content types. Instead, VDE provides a broad-spectrum, fundamentally... most usage, audit, reporting, payment, and distribution control methods are themselves at least in part encrypted and are executed by the secure subsystem of a VDE installation. Thus, for example, billing...The

subservice concept extends to supporting multiple processors, multiple SPEs 503, multiple HPEs 655, and multiple communications services. The preferred embodiment ROS 602 provides the following RPC based service providers/requestors...

#### 14/3,K/6 (Item 4 from file: 348)

DIALOG(R) File 348: EUROPEAN PATENTS

(c) 2005 European Patent Office. All rts. reserv.

### 01845538

Method and system for key distribution comprising a step of authentication and a step of key distribution using a KEK (key encryption key)

Verfahren und System zur Schlusseldistribution mit einem Authentifizierungschritt und einem Schlusseldistributionsschritt unter Verwendung von KEK (key encryption key)

Methode systeme de distribution de cle comprenant une etape d'authentification et une de distribution de cle a l'aide de KEK (key encryption key)

PATENT ASSIGNEE:

Eisst Limited, (4500220), 6-8 Underwood Street, London N17 JQ, (GB), (Applicant designated States: all)

INVENTOR:

Ronchi, Corrado, Via Masaccio 1, 00196 Roma, (IT)

Zakhidov, Shukhrat, 6 O.Zakirova St., Apt. 57, Tashkent 700000, (UZ) LEGAL REPRESENTATIVE:

Gervasi, Gemma, Dr. (40515), Notarbartolo & Gervasi S.p.A., Corso di Porta Vittoria, 9, 20122 Milano, (IT)

PATENT (CC, No, Kind, Date): EP 1501238 A1 050126 (Basic)

APPLICATION (CC, No, Date): EP 2003016787 030723;

DESIGNATED STATES: AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HU; IE; IT; LI; LU; MC; NL; PT; RO; SE; SI; SK; TR EXTENDED DESIGNATED STATES: AL; LT; LV; MK INTERNATIONAL PATENT CLASS: H04L-009/30; H04L-009/32; G06F-001/00

ABSTRACT WORD COUNT: 207

NOTE:

Figure number on first page: 3

LANGUAGE (Publication, Procedural, Application): English; English; English FULLTEXT AVAILABILITY:

Available Text Language Update Word Count CLAIMS A (English) 200504 1249 SPEC A (English) 200504 3790 Total word count - document A 5039 Total word count - document B Total word count - documents A + B 5039

...INTERNATIONAL PATENT CLASS: G06F-001/00

#### ...ABSTRACT A1

A method for protecting the transfer and storage of data by encryption using a private key encrypted with a first key encrypting key, which is encrypted using a second key encrypting key. This latter key is encrypted using...

- ...SPECIFICATION to be transferred is typically first encrypted by a symmetric encryption algorithm using a pseudorandom secret key . The key is then encrypted utilizing the public key of the intended recipient, and both the encrypted message and the encrypted secret are transmitted to the intended recipient. When the message and secret key are delivered, the recipient uses the private key to decrypt the secret key , and then decrypts the message using the secret key . The larger an encryption key, e.g. 128 bits confronted to 56 bits, the greater...
- ...of securing key distribution and storage, they suffer from several disadvantages inherent in storing the secret key (s) and data either on a centralized server database or on a device in the...

### ...device.

Firstly, it is possible that the storage devices may be probed to obtain the secret key (s). This is particularly true in the case the key storage is kept on the...

...manner that it can be shown that only the authorised user can access all the secret keys required for the processing of a particular message or data.

Summary of the invention It...

...yet another object of the present invention to provide a method and system for defeating secret key discovery attacks in a distributed key cryptography system.

The foregoing objects are achieved by means...

14/3,K/7 (Item 5 from file: 348) DIALOG(R) File 348: EUROPEAN PATENTS (c) 2005 European Patent Office. All rts. reserv.

#### 01776084

Reconfigurable secure input device

Rekonfigurierbares sicheres Eingabegerat

Dispositif reconfigurable securise d'entree de donnees

PATENT ASSIGNEE:

Minebea Co., (4687790), Arco Tower, 19th Floor, 1-8-1, Shimo-Meguro, Meguro-ku, Tokyo 153-8662, (JP), (Applicant designated States: all) INVENTOR:

Fauble, Charles, 18309 Oakmont Drive No. 925, Canyon Country, California 91387, (US)

Dickerman, Robert, 938 Azalea Drive, Costa Mesa California 92626, (US) Takeda, Toshisada, 2716 Simi Hills Lane, Simi Valley, California 93063, (US)

#### LEGAL REPRESENTATIVE:

Every, David Aidan et al (74581), MARKS & CLERK, Sussex House, 83-85 Mosley Street, Manchester M2 3LG, (GB)

PATENT (CC, No, Kind, Date): EP 1447734 A2 040818 (Basic)

APPLICATION (CC, No, Date): EP 2004250504 040130;

PRIORITY (CC, No, Date): US 359780 030207

DESIGNATED STATES: AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HU; IE; IT; LI; LU; MC; NL; PT; RO; SE; SI; SK; TR

EXTENDED DESIGNATED STATES: AL; LT; LV; MK

INTERNATIONAL PATENT CLASS: G06F-001/00

ABSTRACT WORD COUNT: 140

NOTE:

Figure number on first page: 004

LANGUAGE (Publication, Procedural, Application): English; English; FULLTEXT AVAILABILITY:

Available Text Language Update Word Count CLAIMS A (English) 200434 1491

SPEC A (English) 200434 9137

Total word count - document A 10628
Total word count - document B 0

Total word count - documents A + B 10628

### INTERNATIONAL PATENT CLASS: G06F-001/00

...SPECIFICATION key encryption and public-key encryption. Symmetric-key encryption requires that each computer have a secret key. The secret key is used to encode and decode the information transmitted between the two computers. In order for symmetric-key encryption to work, the secret key must be provided to each of the two computers. If this is done over a non-secure transmission line, the security of the secret key may be compromised and someone may be able to intercept the secret key.

Public-key encryption utilizes a combination of a private key and a public key. The...

...utilize the random number generator to generate a pseudo-random session key, which is a **secret key**. If the second computing device generates the **secret key**, the second computing device transmits the **secret key** to the first computing device utilizing public-private key cryptography.

After the **secret key** is shared between the first computing device and second computing device, symmetric cryptography, using the **secret key**, is performed because the computational burden is lower on the system than with public key...

- ...bits. In some cases, the public-private key cryptography is utilized only to share the **secret key** . In some systems, it may also be required that digital signatures are necessary during the...
- ...transformation instruction to the global network 46.

  The first computing device 42 may receive the **second** computing device public **key** and the **encrypted** transformation instruction(s) and may **transfer** the **second** computing device public **key** and the encrypted transformation instruction(s) to an RSID 50. The RSID 50 may store...
- ...output and placed in a temporary buffer. The transformed code may be encrypted utilizing the **second** computing device public **key** and the **encrypted** transformed **code** may be **transferred** from the RSID 50 to the first computing device 42...

14/3,K/8 (Item 6 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
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01752676

Systems and methods for secure transaction management and electronic rights protection

Systeme und Verfahren zur gesicherten Transaktionsverwaltung und elektronischem Rechtsschutz

Systemes et procedes de gestion de transactions securisees et de protection de droits electroniques

PATENT ASSIGNEE:

ELECTRONIC PUBLISHING RESOURCES, INC., (976840), 460 Oakmead Parkway, Sunnyvale, CA 94086-4708, (US), (Applicant designated States: all) INVENTOR:

Ginter, Karl L., 10404 43rd Avenue, Beltsville Maryland 20705, (US) Shear, Victor H., 5203 Battery Lane, Bethesda Maryland 20814, (US) Spahn, Francis J., 2410 Edwards Avenue, El Cerrito California 94530, (US) van Wie, David M., 1250 Lakeside Drive, Sunnyvale California 94086, (US) LEGAL REPRESENTATIVE:

Smith, Norman Ian et al (36041), fJ CLEVELAND 40-43 Chancery Lane, London WC2A 1JQ, (GB)

PATENT (CC, No, Kind, Date): EP 1431864 A2 040623 (Basic) EP 1431864 A3 050216

APPLICATION (CC, No, Date): EP 2004075701 960213;

PRIORITY (CC, No, Date): US 388107 950213

DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE

RELATED PARENT NUMBER(S) - PN (AN):

EP 861461 (EP 96922371)

INTERNATIONAL PATENT CLASS: G06F-001/00; G06F-017/60

ABSTRACT WORD COUNT: 151

NOTE:

Figure number on first page: 77

LANGUAGE (Publication, Procedural, Application): English; English; FULLTEXT AVAILABILITY:

Available Text Language Update Word Count CLAIMS A (English) 200426 1450 SPEC A (English) 200426 166929

Total word count - document A 168379

Total word count - document B 0

Total word count - documents A + B 168379

```
INTERNATIONAL PATENT CLASS: G06F-001/00 ...
... G06F-017/60
 14/3.K/9
              (Item 7 from file: 348)
DIALOG(R) File 348: EUROPEAN PATENTS
(c) 2005 European Patent Office. All rts. reserv.
01679172
Systems and methods for issuing usage licenses for digital content and
    services
System und Methode zum Ausstellen von Verwendungslizenen für digitale
    Inhalte und Dienste
Systemes et methodes permettant de generer des licences d'utilisation de
    contenu numerique et de services
PATENT ASSIGNEE:
  MICROSOFT CORPORATION, (749866), One Microsoft Way, Redmond, WA 98052,
    (US), (Applicant designated States: all)
INVENTOR:
  Waxman, Peter, 10008 NE 28th Place, Bellevue, Washington 98004, (US)
  Narin, Attilla, 8741 NE 144th Court, Bothell, Washington 98011, (US)
  Cottrille, Scott, 22618 NE 14th Drive, Sammamish, Washington 98074, (US)
  Krishnaswamy, Vinay, 23319 NE 142nd Place, Woodinville, Washington 98072,
  DeMello, Marco A., 6606 152nd Ave., Redmond, Washington 98052, (US)
 Venkatesh, Chandramouli, 414 213th Place SE, Sammamish, Washington 98074,
  Byrum, Frank D., 1200 Western Ave. No. 1210, Seattle, Washington 98101,
    (US)
  Bourne, Steve, 303 E.Pike Street No.602, Seattle, Washington 98122, (US)
LEGAL REPRESENTATIVE:
  Grunecker, Kinkeldey, Stockmair & Schwanhausser Anwaltssozietat (100721)
    , Maximilianstrasse 58, 80538 Munchen, (DE)
PATENT (CC, No, Kind, Date): EP 1378811 A2 040107 (Basic)
APPLICATION (CC, No, Date):
                             EP 2003013556 030613;
PRIORITY (CC, No, Date): US 185511 020628
DESIGNATED STATES: AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR;
  HU; IE; IT; LI; LU; MC; NL; PT; RO; SE; SI; SK; TR
EXTENDED DESIGNATED STATES: AL; LT; LV; MK
INTERNATIONAL PATENT CLASS: G06F-001/00
ABSTRACT WORD COUNT: 181
NOTE:
  Figure number on first page: 3
LANGUAGE (Publication, Procedural, Application): English; English; English
FULLTEXT AVAILABILITY:
Available Text Language
                           Update
                                     Word Count
      CLAIMS A (English)
                           200402
                                      2069
      SPEC A
                           200402
                (English)
                                     12669
Total word count - document A
                                     14738
Total word count - document B
                                         0
Total word count - documents A + B
                                     14738
INTERNATIONAL PATENT CLASS: G06F-001/00
```

...SPECIFICATION used to encrypt the digital content. Symmetric key algorithms, which are sometimes referred to as "secret key " algorithms, use the same key to decrypt a message as they do to encrypt the...

```
... CLAIMS claim 26, wherein encrypting the content encryption key
      comprises:
   retrieving the public key from the digital
                                                 rights
                                                          management
   generating a second content lencryption
   encrypting the content encryption key using the second content
      encryption key; and
   encrypting the second ...
 14/3, K/10
               (Item 8 from file: 348)
DIALOG(R) File 348: EUROPEAN PATENTS
(c) 2005 European Patent Office. All rts. reserv.
01654782
Contents distribution scheme using tamper-resistant processor
Schema
               Verteilung des Inhalts mit Hilfe eines betrugssicheren
         zur
    Prozessors
Un schema de distribution de contenu au moyen d'un processeur inviolable
PATENT ASSIGNEE:
  Kabushiki Kaisha Toshiba, (2077102), 1-1, Shibaura 1-chome, Minato-ku,
    Tokyo 105-8001, (JP), (Applicant designated States: all)
INVENTOR:
  Isożaki, Hiroshi, c/o Int. Prop. Division, Toshiba Corporation, 1-1
    Shibaura 1-chome, Minato-ku, Tokyo, (JP)
  Hashimoto, Mikio, c/o Int. Prop. Division, Toshiba Corporation, 1-1
    Shibaura 1-chome, Minato-ku, Tokyo, (JP)
LEGAL REPRESENTATIVE:
  Midgley, Jonathan Lee (85971), Marks & Clerk 57-60 Lincoln's Inn Fields,
    GB-London WC2A 3LS, (GB)
PATENT (CC, No, Kind, Date):
                              EP 1361497 A2 031112 (Basic)
                              EP 1361497 A3 041117
                              EP 2003252895 030509;
APPLICATION (CC, No, Date):
PRIORITY (CC, No, Date): JP 2002134507 020509
DESIGNATED STATES: AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR;
  HU; IE; IT; LI; LU; MC; NL; PT; RO; SE; SI; SK; TR
EXTENDED DESIGNATED STATES: AL; LT; LV; MK
INTERNATIONAL PATENT CLASS: G06F-001/00
ABSTRACT WORD COUNT: 92
NOTE:
  Figure number on first page: 1
LANGUAGE (Publication, Procedural, Application): English; English; English
FULLTEXT AVAILABILITY:
Available Text Language
                           Update
                                     Word Count
      CLAIMS A (English)
                           200346
                                      1666
      SPEC A
                (English)
                           200346
                                     12733
Total word count - document A
                                     14399
Total word count - document B
                                         0
Total word count - documents A + B
                                     14399
```

# INTERNATIONAL PATENT CLASS: G06F-001/00

- ... ABSTRACT the contents receiving and viewing program by using either the public key algorithm or the **secret key** algorithm, and transmits the contents by trusting the reception device only when that authentication succeeds.
- ... SPECIFICATION contents distribution scheme utilizing a device adopting a

tamperresistant processor which internally maintains a processor  $\ensuremath{\mathbf{secret}}$  key .

DESCRIPTION OF THE RELATED ART
In recent years, due to the spread of computer networks...

- ...a microprocessor and a reception device having a tamper resistant microprocessor which maintains a processor secret key inside and an external memory, the tamper resistant microprocessor being capable of obtaining a plurality of program keys by decrypting a plurality of distribution keys respectively corresponding to a plurality of programs by using the processor secret key, and executing the plurality of programs arranged in the external memory in a state of...a prescribed public key algorithm based on a public key that is corresponding to a secret key of the contents receiving and viewing program and maintained in advance by the contents transmission program, or by a secret key algorithm based on a secret key that is maintained in advance by the contents transmission program and shared with the contents...
- ...method executed by a transmission device having a tamper resistant microprocessor which maintains a processor secret key inside and an external memory, and a reception device, the tamper resistant microprocessor being capable of obtaining a plurality of program keys by decrypting a plurality of distribution keys respectively corresponding to a plurality of programs by using the processor secret key, and executing the plurality of programs arranged in the external memory in a state of...
- ...of programs by using respectively corresponding program keys, the contents distribution method comprising: storing a **secret key** that is set in correspondence to the contents transmission device, in a state of being...
- ...a prescribed public key algorithm based on a public key that is corresponding to the **secret key** of the contents transmission program and maintained in advance by a contents receiving and viewing...
- ...contents transmission program only when it is proved that the contents transmission program has the **secret key** at the authenticating step, by the contents receiving and viewing program.

  According to another aspect...
- ...device and a reception device each having a tamper resistant microprocessor which maintains a processor secret key inside and an external memory, the tamper resistant microprocessor being capable of obtaining a plurality of program keys by decrypting a plurality of distribution keys respectively corresponding to a plurality of programs by using the processor secret key, and executing the plurality of programs arranged in the external memory in a state of...
- ...a microprocessor and a reception device having a tamper resistant microprocessor which maintains a processor secret key inside and an external memory, the tamper resistant microprocessor being capable of obtaining a plurality of program keys by decrypting a plurality of distribution keys respectively corresponding to a plurality of programs by using the processor secret key, and executing the plurality of programs arranged in the external memory in a state of...
- ...a prescribed public key algorithm based on a public key that is corresponding to a **sec**ret key of the contents receiving and viewing program and maintained in advance by the contents transmission program,

```
14/3, K/11
               (Item 9 from file: 348)
DIALOG(R) File 348: EUROPEAN PATENTS
(c) 2005 European Patent Office. All rts. reserv.
01574894
Encrypted program distribution system using computer network
System zur Verteilung eines verschlusselten Programms durch ein Netzwerk
         de
               distribution de logiciels criptes utilisant un reseau
    informatique
PATENT ASSIGNEE:
  Kabushiki Kaisha Toshiba, (2077102), 1-1, Shibaura 1-chome, Minato-ku,
    Tokyo 105-8001, (JP), (Applicant designated States: all)
INVENTOR:
  Hashimoto, Mikio, c/o Intell. Prop. Division, Toshiba Corporation, 1-1,
    Shibaura 1-chome, Minato-ku, Tokyo, (JP)
  Shirakawa, Kenji, c/o Intell. Prop. Division, Toshiba Corporation, 1-1,
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    1-1, Shibaura 1-chome, Minato-ku, Tokyo, (JP)
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    Shibaura 1-chome, Minato-ku, Tokyo, (JP)
LEGAL REPRESENTATIVE:
  Granleese, Rhian Jane (92091), Marks & Clerk, 57-60 Lincoln's Inn Fields,
    London WC2A 3LS, (GB)
PATENT (CC, No, Kind, Date): EP 1308820 A2 030507 (Basic)
                               EP 1308820 A3 030709
APPLICATION (CC, No, Date):
                               EP 2001309273 011031;
PRIORITY (CC, No, Date): JP 2000332068 001031
DESIGNATED STATES: DE; FR; GB
EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI
INTERNATIONAL PATENT CLASS: G06F-001/00
ABSTRACT WORD COUNT: 138
NOTE:
  Figure number on first page: 1
LANGUAGE (Publication, Procedural, Application): English; English; English
FULLTEXT AVAILABILITY:
Available Text Language
                            Update
                                      Word Count
      CLAIMS A (English)
                            200319
                                       3876
      SPEC A
                (English)
                           200319
                                      12193
Total word count - document A
                                      16069
Total word count - document B
                                          0
Total word count - documents A + B
                                      16069
INTERNATIONAL PATENT CLASS: G06F-001/00
```

...SPECIFICATION codes and data by hardware. Its safety level depends on the safety level of the secret key embedded in the processor chip. However, in this type of tamper resistant processor, different unique ...configured to decrypt the execution file received by the second receiving unit by using a secret key corresponding to the public key.

According to another aspect of the present invention there is...

. . .

- ...configured to encrypt at least a part of the execution file by using a prescribed **secret key**, when the source file passes an examination by the examination unit; a public key receiving...
- ...an examination by the examination unit; a second encryption unit configured to encrypt the prescribed **secret key** by using the public key received by the public key receiving unit, when the source...
- ...configured to send the execution file encrypted by the first encryption unit and the prescribed **secret key** encrypted by the second encryption unit to the execution file receiving device, when the source...
- ...distribution device; a second receiving unit configured to receive the execution file and the prescribed secret key sent from the encrypted program distribution device; and a first decryption unit configured to decrypt the prescribed secret key received by the second receiving unit by using a secret key corresponding to the public key; and a second decryption unit configured to decrypt the execution file received by the second receiving unit by using the prescribed secret key decrypted by the first decryption unit.

According to another aspect of the present invention there...

- ...configured to encrypt at least a part of the execution file by using a prescribed secret key, when the source file passes an examination by the examination unit; a public key receiving...an examination by the examination unit; a second encryption unit configured to encrypt the prescribed secret key by using the public key received by the public key receiving unit, when the source...
- ...configured to send the execution file encrypted by the first encryption unit and the prescribed **secret key** encrypted by the second encryption unit to the execution file receiving device, when the source...
- ...device; and (i) decrypting the execution file received by the step (h) by using a **secret key** corresponding to the public key at the execution file receiving device.

According to another aspect...

- ...c); (e) encrypting at least a part of the execution file by using a prescribed **secret key**, at the encrypted program distribution device, when the source file passes an examination by the...
- ...when the source file passes an examination by the step (c); (g) encrypting the prescribed **secret key** by using the public key received by the step (f), at the encrypted program distribution...
- ...step (c); (h) sending the execution file encrypted by the step (e) and the prescribed **secret key** encrypted by the step (g) from the encrypted program distribution device to the execution file...
- ...passes an examination by the step (c); (i) receiving the execution file and the prescribed secret key sent from the encrypted program distribution device at the execution file receiving device; (j) decrypting the prescribed secret key received by the step (i) by using a secret key corresponding to the public key at the execution file receiving device; and (k) decrypting the execution file received by the step (i) by using the prescribed secret key decrypted by the step (j) at the execution file receiving device.

According to another aspect...b); (d) encrypting at least a part of the execution file by using a prescribed secret key, when the source file

```
14/3,K/12
               (Item 10 from file: 348)
DIALOG(R) File 348: EUROPEAN PATENTS
(c) 2005 European Patent Office. All rts. reserv.
01529241
Digital work protection system, recording medium apparatus, transmission
    apparatus, and playback apparatus
System zum Schutz digitaler Inhalte, Aufzeichnungsgerat, Ubertragungsgerat
    und Wiedergabegerat
Systeme de protection de contenu numerique, appareil d'enregistrement,
    appareil de transmission et appareil de reproduction
PATENT ASSIGNEE:
  MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD., (216883), 1006, Oaza-Kadoma,
    Kadoma-shi, Osaka 571-8501, (JP), (Applicant designated States: all)
INVENTOR:
  Harada, Shunji, 2-20-52, Tamadenishi, Nishinari, Osaka-fu 557-0045, (JP)
  Futa, Yuichi, 3-7-36, Diatou-cho, Miyakojima-ku, Osaka-shi, Osaka-fu
    534-0002, (JP)
  Miyazaki, Masaya, 1-6-14, Asahigaoka, Ikeda-shi, Osaka-fu, 563-0022, (JP)
  Sekibe, Tsutomu, 5-49-34, Yamanoue, Hirakata-shi, Osaka-fu, 573-0047,
    (JP)
  Nakanishi, Yoshiaki, Matsunokiryo 305, 2-4-10, Matsunoki, Suginami-ku,
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  Matsuzaki, Natsume, 1-6-7-803, Aomadaninishi, Minou-shi, Osaka-fu
    562-0023, (JP)
LEGAL REPRESENTATIVE:
  Grunecker, Kinkeldey, Stockmair & Schwanhausser Anwaltssozietat (100721)
    , Maximilianstrasse 58, 80538 Munchen, (DE)
PATENT (CC, No, Kind, Date): EP 1276106 A1 030115 (Basic)
APPLICATION (CC, No, Date):
                              EP 2002015287 020709;
PRIORITY (CC, No, Date): JP 2001208533 010709
DESIGNATED STATES: DE; FR; GB
EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI
INTERNATIONAL PATENT CLASS: G11B-020/00; G06F-001/00
ABSTRACT WORD COUNT: 107
NOTE:
  Figure number on first page: 1
LANGUAGE (Publication, Procedural, Application): English; English; English
FULLTEXT AVAILABILITY:
Available Text Language
                           Update
                                     Word Count
      CLAIMS A
                (English)
                           200303
                                      4070
      SPEC A
                (English)
                           200303
                                     18349
Total word count - document A
                                     22419
Total word count - document B
                                         0
Total word count - documents A + B
                                     22419
... INTERNATIONAL PATENT CLASS: G06F-001/00
... SPECIFICATION transmission apparatus operable to encrypt original
```

..SPECIFICATION transmission apparatus operable to encrypt original content that is the digital work, based on a **distribution encryption key**, to generate **first encrypted** information, and transmit the generated first encrypted information via a network; the reception apparatus operable...content key, to generate encrypted content, (d) encrypt the original content key using the obtained **distribution encryption key**, to generate a **first** encrypted content **key**, and (d) transmit the first encrypted information that includes the generated encrypted content and the...

- ...advance the distribution decryption key and the medium unique key, (b) obtain the output first encrypted information, (c) decrypt the first encrypted content key using the distribution decryption key, to generate an intermediate content key, (d) encrypt the generated intermediate content key using...
- ...content key, to generate encrypted content, and encrypt the original content key using the obtained **distribution encryption key**, to generate a **first** encrypted content **key**; and a transmission unit operable to transmit the encrypted content and the first encrypted content...
- ...unique to the recording medium apparatus; an obtaining sub-unit operable to obtain the output encrypted content and the output first encrypted content key; a decryption sub-unit operable to decrypt the first encrypted content key using the distribution decryption key, to generate an intermediate content key; an encryption sub-unit operable to encrypt the...content key, to generate encrypted content, and encrypt the original content key using the obtained distribution encryption key, to generate a first encrypted content key; and a transmission unit operable to transmit the encrypted content and the first encrypted content...
- ...condition information, the encryption unit may further encrypt the original usage condition key using the **distribution encryption key**, to generate a **first** encrypted usage condition **key**, and encrypts the usage condition information using the original usage condition key, to generate first...
- ...the stated construction, use of the public key can be limited in accordance with the **secret key** being exposed, therefore content can be distributed even more safely.
  - Here, the storage unit may...and the transmission apparatus encrypting original content that is a digital work, based on a **distribution** encryption key, to generate first encrypted information, and transmitting the generated first encrypted information via a network to the reception apparatus...
- ...content key, to generate encrypted content, (d) encrypt the original content key using the obtained distribution encryption key, to generate a first encrypted content key, and (d) transmit the first encrypted information that includes the generated encrypted content and the first encrypted content key; the obtaining sub-unit may obtain the obtained first encrypted information; the decryption unit may decrypt the first encrypted content key using the distribution decryption key, to generate an intermediate content key, and generate intermediate information that includes the encrypted...
- ...unique to the usage condition information, (b) encrypt the original usage condition key, using the **distribution** encryption key, to generate a **first** encrypted usage condition key, (c) encrypt the usage condition information using the original usage condition key, to generate first...
- ...usage condition information via the reception apparatus, the decryption sub-unit may further decrypt the **first encrypted** usage condition **key** using the **distribution** key, to generate an intermediate usage condition key, and decrypt the first encrypted usage condition...
- ...using a public key generation algorithm, based on a distribution

- ...using a public key generation algorithm, based on a distribution decryption key that is a **secret key**, and performs encryption according to a public key encryption algorithm using a distribution encryption key...the plurality of encryption methods.
  - 25. The recording medium apparatus of Claim 14,

wherein the key storage sub-unit stores a plurality of distribution decryption key candidates, and one distribution decryption key candidate is selected from among the plurality of distribution decryption key candidates as the distribution decryption key, and

the decryption sub-unit uses the selected distribution decryption key.

26. The recording medium apparatus of Claim 14,

wherein the tamper-proof module unit...

- ...apparatus, the transmission apparatus encrypting original content that is the digital work, based on a **distribution encryption key**, to generate **first encrypted** information, and transmits the generated first encrypted information via the network to the reception apparatus...
- ...content key, to generate encrypted content, (d) encrypts the original content key using the obtained **distribution encryption key**, to generate a **first** encrypted content **key**, and (e) transmits the first encrypted information that includes the generated encrypted content and the...
- ...advance the distribution decryption key and the medium unique key, (b) obtains the output first encrypted information, (c) decrypts the first encrypted content key using the distribution decryption key, to generate an intermediate content key, (d) encrypts the generated intermediate content key using...
- ...unique to the usage condition information, (b) encrypts the original usage condition key using the **distribution** encryption key, to generate a **first** encrypted usage condition key, (c) encrypts the usage condition information using the original usage condition key, to generate first reception apparatus,

the recording medium apparatus further (a) obtains via the network the first encrypted usage condition key and the first encrypted usage condition information, (b) decrypts the first encrypted usage condition key using the distribution decryption key, to generate an intermediate usage condition key, (c) decrypts the first encrypted usage condition...

14/3,K/13 (Item 11 from file: 348)

DIALOG(R) File 348: EUROPEAN PATENTS

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01504244

DATA ACCESS MANAGEMENT SYSTEM AND MANAGEMENT METHOD USING ACCESS CONTROL TICKET

DATENZUGRIFFSMANAGEMENTSYSTEM UND MANAGEMENTVERFAHREN MIT EINEM ZUGRIFFSSTEUERTICKET

```
BILLET DE COMMANDE D'ACCES
PATENT ASSIGNEE:
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    Shinagawa-Ku, Tokyo 141-0001, (JP)
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LEGAL REPRESENTATIVE:
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    Fetter Lane, London EC4A 1DA, (GB)
PATENT (CC, No, Kind, Date): EP 1303075 A1 030416 (Basic)
                              WO 2002076013 020926
APPLICATION (CC, No, Date):
                              EP 2002702791 020307; WO 2002JP2113 020307
PRIORITY (CC, No, Date): JP 200173353 010315
DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;
  LU; MC; NL; PT; SE; TR
EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI
INTERNATIONAL PATENT CLASS: H04L-009/00; G09C-001/00; G06F-012/14;
  G06F-015/00; G06F-017/60; G06F-019/00; G06F-017/00; G06K-019/00
ABSTRACT WORD COUNT: 137
NOTE:
  Figure number on first page: 0001
LANGUAGE (Publication, Procedural, Application): English; English; Japanese
FULLTEXT AVAILABILITY:
Available Text Language
                           Update
                                     Word Count
      CLAIMS A (English) 200316
                                      8394
                (English) 200316
      SPEC A
                                     79434
Total word count - document A
                                     87828
Total word count - document B
Total word count - documents A + B
                                     87828
...INTERNATIONAL PATENT CLASS: G06F-012/14 ...
... G06F-015/00 ...
... G06F-017/60 ...
... G06F-019/00 ...
... G06F-017/00
... SPECIFICATION with, and that the digital signature has been generated by
  the entity which has the secret key corresponding to the public key.
    If the digital signature data c or d does not...
14/3,K/14
               (Item 12 from file: 348)
DIALOG(R) File 348: EUROPEAN PATENTS
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SYSTEME DE GESTION D'ACCES AUX DONNEES ET PROCEDE DE GESTION UTILISANT UN

01504243

MEMORY ACCESS CONTROL SYSTEM AND MANAGEMENT METHOD USING ACCESS CONTROL TICKET

```
VORRICHTUNG ZUR SPEICHERZUGRIFFSTEUERUNG UND VERWALTUNGSVERFAHREN UNTER
    VERWENDUNG EINES SPEICHERZUGRIFFSTICKETS
SYSTEME DE CONTROLE D'ACCES A LA MEMOIRE ET PROCEDE DE GESTION FAISANT
    APPEL A UN TICKET DE CONTROLE D'ACCES
PATENT ASSIGNEE:
  Sony Corporation, (214028), 7-35, Kitashinagawa 6-chome, Shinagawa-ku,
    Tokyo 141-0001, (JP), (Applicant designated States: all)
INVENTOR:
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  ISHIBASHI, Yoshihito, c/o SONY CORPORATION, 7-35, Kitashinagawa
    6-chome, Shinagawa-ku, Tokyo 141-0001, (JP)
  SHIRAI, Taizo, c/o SONY CORPORATION, 7-35, Kitashinagawa
    6-chome, Shinagawa-ku,, Tokyo 141-0001, (JP)
  TAKADA, Masayuki, c/o SONY CORPORATION, 7-35, Kitashinagawa
    6-chome, Shinagawa-ku,, Tokyo 141-0001, (JP)
LEGAL REPRESENTATIVE:
  Mills, Julia et al (97061), D Young & Co, 21 New Fetter Lane, London EC4A
    1DA, (GB)
PATENT (CC, No, Kind, Date): EP 1276271 Al 030115 (Basic)
                              WO 2002076012 020926
APPLICATION (CC, No, Date):
                              EP 2002702790 020307; WO 2002JP2112 020307
PRIORITY (CC, No, Date): JP 200173352 010315
DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;
  LU; MC; NL; PT; SE; TR
EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI
INTERNATIONAL PATENT CLASS: H04L-009/00; G09C-001/00; G06F-012/14;
  G06F-015/00; G06F-017/60; G06F-019/00; G06K-017/00; G06K-019/00
ABSTRACT WORD COUNT: 119
NOTE:
  Figure number on first page: 0001
LANGUAGE (Publication, Procedural, Application): English; English; Japanese
FULLTEXT AVAILABILITY:
Available Text Language
                           Update
                                     Word Count
      CLAIMS A (English)
                           200303
                                      3051
      SPEC A
                (English)
                           200303
                                     73024
Total word count - document A
                                     76075
Total word count - document B
Total word count - documents A + B
                                     76075
...INTERNATIONAL PATENT CLASS: G06F-012/14 ...
... G06F-015/00 ...
... G06F-017/60 ...
... G06F-019/00
... SPECIFICATION with, and that the digital signature has been generated by
```

the entity which has the **secret key** corresponding to the public key. If the digital signature data c or d does not...for each partition. When making an access to a file created in the partition, the **encryption** key is used for data **transfer**. There are **several** types of **encryption keys**.

For example, as shown in Fig. 85, between the device 100 and an access unit...

14/3,K/15 (Item 13 from file: 348) DIALOG(R)File 348:EUROPEAN PATENTS

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01488671

DATA TERMINAL CAPABLE OF TRANSFERRING CIPHERED CONTENT DATA AND LICENSE ACQUIRED BY SOFTWARE

DATENENDGERAT, DAS CHIFFRIERTE INHALTSDATEN UND EINE DURCH SOFTWARE ANGESCHAFFTE LIZENZ TRANSFERIEREN KANN

TERMINAL DE DONNEES CAPABLE DE TRANSFERER DES DONNEES DE CONTENU CHIFFRE ET UNE LICENCE ACQUISES PAR L'INTERMEDIAIRE D'UN LOGICIEL PATENT ASSIGNEE:

Sanyo Electric Co., Ltd., (2206455), 5-5, Keihan-Hondori 2-chome, Moriguchi-shi, Osaka 570-8677, (JP), (Applicant designated States: all) FUJITSU LIMITED, (211463), 1-1, Kamikodanaka 4-chome, Nakahara-ku, Kawasaki-shi, Kanagawa 211-8588, (JP), (Applicant designated States: all)

Hitachi, Ltd., (204145), 6 Kanda Surugadai 4-chome, Chiyoda-ku, Tokyo 101-8010, (JP), (Applicant designated States: all) INVENTOR:

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Miyazono, Shinya, c/o Sanyo Electric Co., Ltd, 5-5, Keihanhondori 2-chome , Moriguchi-shi, Osaka 570-8677, (JP)

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Hasebe, Takayuki, c/o Fujitsu Limited, 1-1, Kamikodanaka 4-chome, Nakahara-ku, Kawasaki-shi, Kanagawa 211-8588, (JP)

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Tsunehiro, Takashi, co/ Sys. Devel. Lab. Hitachi L, t92, Yoshida-cho, Totsuka-ku, Yokohama-shi, Kanagawa 244-0817, (JP)

Ohmori, Yoshio, c/o Denon Ltd., Sagamiharashi,, Kanagawa 228-8505, (JP) LEGAL REPRESENTATIVE:

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PATENT (CC, No, Kind, Date): EP 1338992 A1 030827 (Basic)

WO 2002042966 020530

APPLICATION (CC, No, Date): EP 2001997765 011122; WO 2001JP10258 011122 PRIORITY (CC, No, Date): JP 2000358238 001124

DESIGNATED STATES: DE; FR; GB

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: G06F-017/60

ABSTRACT WORD COUNT: 114

NOTE:

Figure number on first page: 1

LANGUAGE (Publication, Procedural, Application): English; English; Japanese FULLTEXT AVAILABILITY:

Available Text Language Word Count Update 200335 2920 CLAIMS A (English) (English) 200335 SPEC A 23143 Total word count - document A 26063 Total word count - document B 0 Total word count - documents A + B 26063

INTERNATIONAL PATENT CLASS: G06F-017/60

...SPECIFICATION to the terminal or the user after being encrypted. The first is a system for **distributing** an **encryption key** for

communication, the **second** is the system for encrypting to-be-distributed contents data itself, and the third is...the license key for each memory card by providing the memory card, i.e., the **secret** key of the recording device.

Memory card 110 further includes an interface 1424 exchanging a signal ...output to the memory card, the content reproduction device or the like to which the **secret key** is leaked from the license administration module which receives the distribution.

After step S250 or...

## 14/3,K/16 (Item 14 from file: 348)

DIALOG(R) File 348: EUROPEAN PATENTS

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#### 01483241

INFORMATION PROCESSING APPARATUS AND METHOD, AND STORAGE MEDIUM INFORMATIONSVERARBEITUNGSVORRICHTUNG UND VERFAHREN UND SPEICHERMEDIUM APPAREIL ET PROCEDE DE TRAITEMENT DE DONNEES, ET SUPPORT DE STOCKAGE PATENT ASSIGNEE:

Sony Corporation, (214028), 7-35, Kitashinagawa 6-chome, Shinagawa-ku, Tokyo 141-0001, (JP), (Applicant designated States: all)

LEGAL REPRESENTATIVE:

Horner, David Richard et al (77632), D Young & Co, 21 New Fetter Lane, London EC4A 1DA, (GB)

PATENT (CC, No, Kind, Date): EP 1365536 A1 031126 (Basic)

WO 2002069557 020906

APPLICATION (CC, No, Date): EP 2002712408 020218; WO 2002JP1337 020218 PRIORITY (CC, No, Date): JP 200150781 010226

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE; TR

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI INTERNATIONAL PATENT CLASS: H04L-009/00; G06F-017/60

ABSTRACT WORD COUNT: 111

NOTE:

Figure number on first page: 0007

LANGUAGE (Publication, Procedural, Application): English; English; Japanese FULLTEXT AVAILABILITY:

Available Text Language Update Word Count CLAIMS A (English) 200348 2347 SPEC A (English) 200348 16823 Total word count - document A 19170 Total word count - document B Total word count - documents A + B 19170

## ...INTERNATIONAL PATENT CLASS: G06F-017/60

...SPECIFICATION is possible to charge for the use of information in a form of selling the encryption key. For the circulation and distribution of the encryption key, in many cases, the encryption key, itself, is digitized. In this case, similarly to information to be originally distributed and sold...records included in the transfer history in order from the latest record by using a secret key SCA)) of the management center CA, and checks the records.

When a record which cannot...

- ...management center CA, the records included in the transfer history are decrypted by using a **secret key** SCA)) of the management center CA and are checked in order from the latest record...
- ...management center CA, the records included in the transfer history are decrypted by using a **secret key** SCA)) of the management center CA and are checked in order from the latest record...
- ...the public so as to be used by anybody. The decryption key is called the "secret key", and is managed by a possessor so as not to leak to others. Accordingly, by...
- ...can transmit a code that can be decrypted only by a receiver who possesses a **secret key** .
  - When the public key is PK)), and the **secret key** is SK)), encryption of data M by using the public key PK)) is represented by C = E(PK), M), and decryption of the code C by using the **secret key** SK)) is represented by M = D(SK), C). An important property is that, by keeping the **secret key** SK)) secret, if the public key Pk)) or the code C is known, the original...
- ...taken into consideration. When data M exists, the creator of M uses his or her **secret key** SK) to calculate the electronic signature SG(M) = D(Sk), h(M), where h() represents...
- ...falsified and the electronic signature SG(M) has been added by the owner of the **secret key** SK)). In other words, a message creator uses his or her **secret key** to encrypt a message, whereby a receiver of the encrypted message can decrypt the encrypted...
- ...an ElGamal signature, and an elliptic ElGamal signature. To avoid confusion with electronic signatures, a **secret key** SK)) for use in creating a signature is called a "signature creation key", and a...
- ...challenge&response authentication can be realized. By using the public key PK)), possession of the **secret key** SK)) can be confirmed without knowing the **secret key** itself. For example, a verifying side generates a random number r, calculates the value r...
- ...r") holds in the verifying side, it is confirmed that the other party possesses the **secret key** SK)).
  - Similarly, in the electronic signature technique, by using the signature verification key PK)), it...
- ...the signature creation key SK)).
  - In the challenge&response authentication, the existence of a particular secret key or signature creation key can be confirmed by using a corresponding public key or signature verification key, without knowing the secret key or signature creation key itself.

## Certificate

In order to authenticate a particular other party (or...

- ...it is important to have a correct understanding of a public key corresponding to a **secret key** possessed by the other party, or a signature verification key corresponding to a signature creation...
- ...is absolutely reliable. The CA issues a certificate encrypted by using a CA's own **secret key**. In other words, the certificate cannot be freely forged by others because it bears an...by Infon)) and Pn)).

Certificate Verification

- Content Recovering Apparatus
   The recovery of content in this embodiment...
- ...such as a signature certificate (Infoj)), Pj)), SGj))) of the content issuing apparatus 30, a **secret key** Sj)) corresponding to a public key Pj)) included in the certificate, the public key PCA...
- ...recovering apparatus 50.
  - The electronic signature generator 56 has a function of using its own **secret key** Sj)) to generate its own electronic signature. When data M exists, the electronic signature generator 56 uses its own **secret key** Sj)) to calculate the electronic signature SG(M) = D(Sj), h(M) of data M...
- ...and that the electronic signature SG(M) has been added by the possessor of the **secret key** SK)) (as described above).
  - The fraud detector 59 has a function of receiving from the...by data mn)), TSGn)) is represented by D(Sn)), h(Mn))) (where Sn) is a **secret key** of a content holding apparatus which performs content transfer for the n-th time).

Regarding...

- ...SGn)) = D(SCA)), h(Infon)), Pn)))), generated by the management center CA 70 using its **secret key** SCA)), is added to a set of information linking to the content transferring side, and...
- ...apparatus, and nonce TNn)) (as described above).
  - Finally, the content transferring holding apparatus uses its **secret key** Sn)) to generate electronic signature TSGn)) for the entire transfer history including the new record...
- ...management center CA 70 generates a pair of a public key cryptosystem public key and **secret key** . Here, the public key of the management center CA 70 is represented by PCA')) and the **secret key** is represented by SCA)). The management center CA 70 opens only the public key PCA...
- ...history is verified in step (2), the operation of decrypting each record by using the **secret key** SCA)) of the management center CA 70 is added. The validity of each record is proven based on the ability to use the **secret key** SCA)) to perform proper decryption and the validity of the electronic signature in the record...
- ...CLAIMS predetermined management center, the records included in the transfer history are decrypted by using a **secret key** SCA)) of the management center CA and are checked in order from the latest record ...
- ...management center CA, the records included in the transfer history are decrypted by using a **secret key** SCA)) of the management center CA and are checked in order from the latest record...
- ...management center CA, the records included in the transfer history are decrypted by using a **secret key** SCA)) of the management center CA and are checked in order from the latest record...
- 14/3,K/17 (Item 15 from file: 348)
  DIALOG(R)File 348:EUROPEAN PATENTS
  (c) 2005 European Patent Office. All rts. reserv.

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01476932
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# INFORMATION PROCESSING SYSTEM AND METHOD Vorrichtung und Verfahren zur Informationsverarbeitung SYSTEME DE TRAITEMENT DE L'INFORMATION ET PROCEDE PATENT ASSIGNEE: Sony Corporation, (214028), 7-35, Kitashinagawa 6-chome, Shinagawa-ku, Tokyo 141-0001, (JP), (Applicant designated States: all) ASANO, Tomoyuki c/o SONY CORPORATION, 7-35, KITASHINAGAWA 6-CHOME SHINAGAWA-KU, Tokyo 141-0001, (JP) OSAWA, Yoshitomo c/o SONY CORPORATION, 7-35, KITASHINAGAWA 6-CHOME SHINAGAWA-KU, Tokyo 141-0001, (JP) OISHI, Tateo c/o SONY CORPORATION, 7-35, KITASHINAGAWA 6-CHOME SHINAGAWA-KU, Tokyo 141-0001, (JP) ISHIGURO, Ryuji c/o SONY CORPORATION, 7-35, KITASHINAGAWA 6-CHOME SHINAGAWA-KU, Tokyo 141-0001, (JP) TAKI, Ryuta c/o SONY CORPORATION, 7-35, KITASHINAGAWA 6-CHOME SHINAGAWA-KU, Tokyo 141-0001, (JP) LEGAL REPRESENTATIVE: Horner, David Richard et al (77632), D Young & Co, 21 New Fetter Lane, London EC4A 1DA, (GB) PATENT (CC, No, Kind, Date): EP 1253739 A1 021030 (Basic) WO 2002052781 020704 APPLICATION (CC, No, Date): EP 2001272281 011221; WO 2001JP11237 011221 PRIORITY (CC, No, Date): JP 2000396098 001226 DESIGNATED STATES: AT; DE; FR; GB; NL INTERNATIONAL PATENT CLASS: H04L-009/00; G06F-012/14; G06F-015/00; G06F-017/60 ABSTRACT WORD COUNT: 160 NOTE: Figure number on first page: 0063 LANGUAGE (Publication, Procedural, Application): English; English; Japanese FULLTEXT AVAILABILITY: Available Text Language Update Word Count CLAIMS A (English) 200244 1230 (English) 200244 34791 Total word count - document A 36021 Total word count - document B Total word count - documents A + B 36021 ...INTERNATIONAL PATENT CLASS: G06F-012/14 ... ... G06F-015/00 ... ... G06F-017/60

- ... SPECIFICATION particular user. The document encrypted using the public key can only be decrypted using a **secret key** corresponding to the encryption key used to encrypt that document. The secret key is held only by the user who issued the public key, and thus the document encrypted using the public key can be decrypted only by the user having the **secret** key . A representative example of the public key cryptography is that based on the RSA (Rivest...above-described technique thereby allowing the common authentication key to be used as a secure key and thus allowing authentication to be performed according to the common key cryptography technique. That...
- ...the device B. Herein, the key Kab is a key that is used as a secret key in common by the devices A and B and that is stored in a storage...

the device B decrypts the received data using the key Kab (authentication key) as the **secret key** used in common. More specifically, the decryption of the received data is performed as follows...that can be decrypted only by using a key acquired by processing the EKB and **distributes** the resultant **encrypted key** or content.

First , various entities in the system are described briefly.

Key distribution center (KDC)

A key distribution...produced by the key distribution center (KDC) and issues a public key corresponding to a **secret key** on which a signature is written, for use in verification of the signature.

An EKB...

# 14/3,K/18 (Item 16 from file: 348) DIALOG(R) File 348: EUROPEAN PATENTS (c) 2005 European Patent Office. All rts. reserv. 01476931 INFORMATION PROCESSING SYSTEM AND METHOD VERFAHREN UND VORRICHTUNG ZUR INFORMATIONSVERARBEITUNG SYSTEME ET PROCEDE DE TRAITEMENT D'INFORMATIONS PATENT ASSIGNEE: Sony Corporation, (214031), 6-7-35 Kitashinagawa, Shinagawa-ku, Tokyo 141-0001, (JP), (Applicant designated States: all) INVENTOR: ASANO, Tomoyuki, c/o SONY CORPORATION, 7-35, KITASHINAGAWA 6-CHOME, SHINAGAWA-KU, Tokyo 141-0001, (JP) OSAWA, Yoshitomo, c/o SONY CORPORATION, 7-35, KITASHINAGAWA 6-CHOME, SHINAGAWA-KU, Tokyo 141-0001, (JP) OISHI, Tateo, c/o SONY CORPORATION, 7-35, KITASHINAGAWA 6-CHOME, SHINAGAWA-KU, Tokyo 141-0001, (JP) ISHIGURO, Ryuji, c/o SONY CORPORATION, 7-35, KITASHINAGAWA 6-CHOME, SHINAGAWA-KU, Tokyo 141-0001, (JP) TAKI, Ryuta, c/o SONY CORPORATION, 7-35, KITASHINAGAWA 6-CHOME, SHINAGAWA-KU, Tokyo 141-0001, (JP) LEGAL REPRESENTATIVE: Pilch, Adam John Michael et al (50481), D. YOUNG & CO., 21 New Fetter Lane, London EC4A 1DA, (GB) PATENT (CC, No, Kind, Date): EP 1253738 A1 021030 (Basic) WO 2002052779 020704 APPLICATION (CC, No, Date): EP 2001272279 011221; WO 2001JP11235 011221 PRIORITY (CC, No, Date): JP 2000395105 001226 DESIGNATED STATES: AT; DE; FR; GB; NL INTERNATIONAL PATENT CLASS: H04L-009/00; G06F-012/14; G06F-015/00; G06F-017/60 ABSTRACT WORD COUNT: 149 NOTE: Figure number on first page: 0047

LANGUAGE (Publication, Procedural, Application): English; English; Japanese FULLTEXT AVAILABILITY:

Word Count Available Text Language Update 200244 3050 CLAIMS A (English) SPEC A (English) 200244 36784 Total word count - document A 39834 Total word count - document B n Total word count - documents A + B 39834

...INTERNATIONAL PATENT CLASS: G06F-012/14 ...

... G06F-015/00 ...

# ... G06F-017/60

- ...SPECIFICATION particular user. The document encrypted using the public key can only be decrypted using a secret key corresponding to the encryption key used to encrypt that document. The secret key is held only by the user who issued the public key, and thus the document encrypted using the public key can be decrypted only by the user having the secret key. A representative example of the public key cryptography is that based on the RSA (Rivest...above-described technique thereby allowing the common authentication key to be used as a secure secret key and thus allowing authentication to be performed according to the common key cryptography technique. That...
- ...the device B. Herein, the key Kab is a key that is used as a secret key in common by the devices A and B and that is stored in a storage... the device B decrypts the received data using the key Kab (authentication key) as the secret key used in common. More specifically, the decryption of the received data is performed as follows...that can be decrypted only by using a key acquired by processing the EKB and distributes the resultant encrypted key or content.

First , various entities in the system are described briefly.

Key distribution center (KDC)

A key distribution...produced by the key distribution center (KDC) and issues a public key corresponding to a **secret key** on which a signature is written, for use in verification of the signature.

An EKB...

# 14/3,K/19 (Item 17 from file: 348)

DIALOG(R) File 348: EUROPEAN PATENTS

(c) 2005 European Patent Office. All rts. reserv.

# 01461556

# INFORMATION PROCESSING SYSTEM AND METHOD VERFAHREN UND VORRICHTUNG ZUR INFORMATIONSVERARBEITUNG SYSTEME ET PROCEDE DE TRAITEMENT D'INFORMATIONS PATENT ASSIGNEE:

Sony Corporation, (214028), 7-35, Kitashinagawa 6-chome, Shinagawa-ku, Tokyo 141-0001, (JP), (Applicant designated States: all) INVENTOR:

ASANO, Tomoyuki c/o SONY CORPORATION, 7-35, KITASHINAGAWA 6-CHOME, SHINAGAWA-KU, Tokyo 141-0001, (JP)

OSAWA, Yoshitomo c/o SONY CORPORATION, 7-35, KITASHINAGAWA 6-CHOME, SHINAGAWA-KU, Tokyo 141-0001, (JP)

OISHI, Tateo c/o SONY CORPORATION, 7-35, KITASHINAGAWA 6-CHOME, SHINAGAWA-KU, Tokyo 141-0001, (JP)

ISHIGURO, Ryuji c/o SONY CORPORATION, 7-35, KITASHINAGAWA 6-CHOME, SHINAGAWA-KU, Tokyo 141-0001, (JP)

TAKI, Ryuta c/o SONY CORPORATION, 7-35, KITASHINAGAWA 6-CHOME, SHINAGAWA-KU, Tokyo 141-0001, (JP) LEGAL REPRESENTATIVE:

Pratt, Richard Wilson et al (46458), D. Young & Co, 21 New Fetter Lane, London EC4A 1DA, (GB)

PATENT (CC, No, Kind, Date): EP 1249962 Al 021016 (Basic) WO 2002052780 020704

APPLICATION (CC, No, Date): EP 2001272280 011221; WO 2001JP11236 011221 PRIORITY (CC, No, Date): JP 2000395844 001226

DESIGNATED STATES: AT; DE; FR; GB; NL

INTERNATIONAL PATENT CLASS: H04L-009/00; G06F-012/14; G06F-015/00;

G06F-017/60

ABSTRACT WORD COUNT: 170

NOTE:

Figure number on first page: 0047

LANGUAGE (Publication, Procedural, Application): English; English; Japanese FULLTEXT AVAILABILITY:

Available Text Language Update Word Count CLAIMS A (English) 200242 5699
SPEC A (English) 200242 39829
Total word count - document A 45528
Total word count - document B 0
Total word count - documents A + B 45528

...INTERNATIONAL PATENT CLASS: G06F-012/14 ...

... G06F-015/00 ...

# ... G06F-017/60

...SPECIFICATION particular user. The document encrypted using the public key can only be decrypted using a secret key corresponding to the encryption key used to encrypt that document. The secret key is held only by the user who issued the public key, and thus the document encrypted using the public key can be decrypted only by the user having the secret key. A representative example of the public key cryptography is that based on the RSA (Rivest...above-described technique thereby allowing the common authentication key to be used as a secure secret key and thus allowing authentication to be performed according to the common key cryptography technique. That...

...the device B. Herein, the key Kab is a key that is used as a secret key in common by the devices A and B and that is stored in a storage... the device B decrypts the received data using the key Kab (authentication key) as the secret key used in common. More specifically, the decryption of the received data is performed as follows...that can be decrypted only by using a key acquired by processing the EKB and distributes the resultant encrypted key or content.

First , various entities in the system are described briefly.

Key distribution center (KDC)

A key distribution...produced by the key distribution center (KDC) and issues a public key corresponding to a **secret key** on which a signature is written, for use in verification of the signature.

An EKB...

14/3,K/20 (Item 18 from file: 348)

DIALOG(R) File 348: EUROPEAN PATENTS

(c) 2005 European Patent Office. All rts. reserv.

01324429

System and method for distribution and monitoring of copyrighted data System und Verfahren zur Verteilung und Uberwachung urheberrechtlich geschutzter Daten

Systeme et procede pour la distribution et la surveillance des donnees protegees par un droit d'auteur

PATENT ASSIGNEE:

SONY CORPORATION, (214025), 6-7-35 Kitashinagawa Shinagawa-ku, Tokyo 141,

(JP), (Applicant designated States: all) INVENTOR:

Hirai, Jun, Intellectual Property Department, Sony Corp., 6-7-35

Kitashinagawa, Shinagawa-ku, Tokyo 141, (JP)

LEGAL REPRESENTATIVE:

Turner, James Arthur et al (74631), D. Young & Co., 21 New Fetter Lane, London EC4A 1DA, (GB)

PATENT (CC, No, Kind, Date): EP 1130500 A2 010905 (Basic)

EP 1130500 A3 040728

EP 1130500 A3 040728
Date): EP 2001300144 010109;

APPLICATION (CC, No, Date): EP 2001300144 0 PRIORITY (CC, No, Date): JP 200014195 000120

DESIGNATED STATES: DE; FR; GB

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: G06F-001/00

ABSTRACT WORD COUNT: 123

NOTE:

Figure number on first page: 2

LANGUAGE (Publication, Procedural, Application): English; English; FULLTEXT AVAILABILITY:

Available Text Language Update Word Count

CLAIMS A (English) 200136 2147

SPEC A (English) 200136 5953 Total word count - document A 8100

Total word count - document B

Total word count - document B 0
Total word count - documents A + B 8100

#### INTERNATIONAL PATENT CLASS: G06F-001/00

...SPECIFICATION In this case, the above-described second step can distribute the content via the predetermined **distribution** path with attached authentication information **encrypted** using the encryption **key** issued in the **first** step, making it possible to appropriately prevent the authentication information from being falsified.

The above...the time of encryption and decryption or a public key encryption method in which a **secret key** and a public key are formed in combination may be used. However, in the following...

# 14/3,K/21 (Item 19 from file: 348)

DIALOG(R) File 348: EUROPEAN PATENTS

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# 01316288

Method of using a mask programmed secret key to securely configure a field programmable gate array

Methode zur gesicherten Programmierung eines FPGA mittels eines maskenprogrammierten geheimen Schlussels

Procede de programmabilite d'un circuit integre de type predifuse programmable (FPGA) avec une cle secrete programmee par masque PATENT ASSIGNEE:

Algotronix Ltd., (1289191), 130/10 Calton Road, Edinburgh EH8 8JQ, (GB), (Applicant designated States: all)
INVENTOR:

Kean, Thomas A, 130/10 Calton Road, Edinburgh, Scotland EH8 8JQ, (GB) LEGAL REPRESENTATIVE:

O'Connell, David Christopher (62551), Haseltine Lake & Co., Imperial House, 15-19 Kingsway, London WC2B 6UD, (GB)

PATENT (CC, No, Kind, Date): EP 1124330 A2 010816 (Basic)

EP 1124330 A3 010919

APPLICATION (CC, No, Date): EP 2001301150 010209;

PRIORITY (CC, No, Date): GB 2829 000209; US 747759 001221

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;

LU; MC; NL; PT; SE; TR

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: H03K-019/00; G07C-011/00; G06F-012/14;

G06K-019/073

ABSTRACT WORD COUNT: 144

NOTE:

Figure number on first page: 5

LANGUAGE (Publication, Procedural, Application): English; English; English FULLTEXT AVAILABILITY:

# Method of using a mask programmed secret key to securely configure a field programmable gate array

- ...INTERNATIONAL PATENT CLASS: G06F-012/14
- ...ABSTRACT using the security key stored in the artwork of the field programmable gate array. The **secret key** consists of a number of bits of key information that are embedded within the photomasks...
- ...SPECIFICATION using the security key stored in the artwork of the field programmable gate array. The **secret key** consists of a number of bits of key information that are embedded within the photomasks...
- ...impossible to manufacture cloned products. FPGAs can be manufactured with one of two or more **secret keys** (e.g., key A and key B) embedded in the artwork of the design. After...
- ...packages are marked identically. A customer who bought FPGAs has no way of telling which **secret key** was present on a particular chip. If the customer was a pirate who had a...
- ...a problem: since the bitstream can only be decrypted by an FPGA with the matching **secret key** only 50% of the FPGAs that he bought would actually work with his copied bitstream...
- ...is a method including fabricating a first group of FPGA integrated circuits with a first **secret key** embedded by way of a first mask set. The method includes fabricating a second group of FPGA integrated circuits with a second **secret key** embedded by way of a second mask set. The first group of FPGA integrated circuit...
- ...between the first group of FPGAs and second group of FPGAs is having a different **secret key** or security key. A first secure bitstream will configure properly user-configurable logic of the...
- ...integrated circuits.
  - In an embodiment, the first group of FPGA integrated circuits with the first secret key may be assigned to a first geographic area and the second group of FPGA integrated circuits with the second secret key may be assigned to a second geographic area. In another embodiment, the first group of FPGA integrated circuits with the first secret key are fabricated in a first time period and the second group of FPGA integrated circuits with the second secret key are fabricated in a second time period, different from the first time period. The first...
- ...period. In a further embodiment, the first group of FPGA integrated circuits with the first secret key are assigned to a first customer and the second group of FPGA integrated circuits with the second secret key are assigned to a second customer.
  - In an embodiment, only one mask differs between the...
- ...the first and second group of FPGA integrated circuits in addition to the different embedded  ${\tt secret}$   ${\tt keys}$  .
  - The method further includes loading an unencrypted bitstream into one of the first group of FPGA integrated circuits to generate a secure bitstream using the first secret key. The first and second secret keys may be presented on wires of the respective group of FPGA integrated circuits for only a limited duration. The first secret key may be embedded by setting an initial state of a selection of memory cells in a device configuration memory of the FPGA integrated circuit. In an embodiment, the first secret key is extracted by using a CRC algorithm to compute a checksum of the initial state of the device

- ...memory of the programmable integrated circuit.
  - 14. The method of claim 1 wherein the first **secret key** is embedded by changes to a relatively large block of logic in the first plurality ...

...using a CRC algorithm.

15. The method of claim 13 further comprising:

extracting the first **secret key** by using a CRC algorithm to compute a checksum of the initial state of the...

- ...first plurality of programmable integrated circuits to generate a secure bitstream based on the first **secret key** and an on-chip generated random number.
  - 17. The method of claim 1 further comprising...
- ...first plurality of programmable integrated circuits to generate a secure bitstream based on the first **secret key** and an on-chip generated random number, wherein the secure bitstream includes a message authentication code.
  - 18. A method comprising:
  - embedding a first secret key within the artwork of a programmable
    integrated circuit;
  - storing a user-defined second **secret key** within an encrypted programmable integrated circuit bitstream stored in an external nonvolatile memory accessible by the programmable integrated circuit;
  - decrypting the user-defined second secret key using the first
     secret key; and
  - setting up a secure network link between the programmable integrated circuit and a server using the user-defined second secret key
  - 19. The method of claim 18 further comprising:
  - downloading a programmable integrated circuit bitstream using the secure network link;
  - encrypting the downloaded programmable integrated circuit bitstream
     using the first secret key; and
  - storing the **encrypted downloaded** bitstream in the external memory. 20. The method of claim 18 wherein the secure network...
- ...encrypted downloaded bitstream stored in the external memory.

22. A method comprising:

storing a first **secret key** on a programmable integrated circuit chip;

causing the programmable integrated circuit to calculate a message...

# 14/3,K/22 (Item 20 from file: 348)

DIALOG(R) File 348: EUROPEAN PATENTS

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01311508

DEVICE FOR REPRODUCING DATA

DATENWIEDERGABEGERAT

DISPOSITIF DE REPRODUCTION DE DONNEES

PATENT ASSIGNEE:

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 Moriguchi-shi, Osaka 570-8677, (JP), (Applicant designated States: all)
FUJITSU LIMITED, (211463), 1-1, Kamikodanaka 4-chome, Nakahara-ku,
 Kawasaki-shi, Kanagawa 211-8588, (JP), (Applicant designated States:
 all)

```
Hitachi, Ltd., (204145), 6 Kanda Surugadai 4-chome, Chiyoda-ku, Tokyo 101-8010, (JP), (Applicant designated States: all)
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Nippon Columbia Co., Ltd., (2395621), 14-14 Akasaka 4-chome, Minato-ku, Tokyo 107-8011, (JP), (Applicant designated States: all)
INVENTOR:

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HIOKI, Toshiaki, Sanyo Electric Co., Ltd., 5-5, Keihanhondori 2-chome, Moriguchi-shi, Osaka 570-8677, (JP)

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HATAKEYAMA, Takahisa, Fujitsu Limited, 1-1, Kamikodanaka 4-chome, Nakahara-ku, Kawasaki-shi, Kanagawa 211-8588, (JP)

TONEGAWA, Tadaaki, Hitachi, Ltd., 20-1, Josuihoncho 5-chome, Kodaira-shi, Tokyo 187-8588, (JP)

ANAZAWA, Takeaki Nippon Columbia Co., Ltd., 14-14, Akasaka 4-chome, Minato-ku, Tokyo 107-8011, (JP)

LEGAL REPRESENTATIVE:

Glawe, Delfs, Moll & Partner (100692), Patentanwalte Postfach 26 01 62, 80058 Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 1237323 Al 020904 (Basic)
WO 2001043339 010614

APPLICATION (CC, No, Date): EP 2000979933 001206; WO 2000JP8615 001206 PRIORITY (CC, No, Date): JP 99347904 991207

DESIGNATED STATES: DE; FR; GB

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: H04L-009/08; H04L-009/32; G09C-001/00; G06F-017/60

ABSTRACT WORD COUNT: 109

NOTE:

Figure number on first page: 0004

Total word count - documents A + B

LANGUAGE (Publication, Procedural, Application): English; English; Japanese FULLTEXT AVAILABILITY:

Available Text Language Update Word Count CLAIMS A (English) 200236 862 SPEC A (English) 200236 13834

Total word count - document A 14696

Total word count - document B 0

...INTERNATIONAL PATENT CLASS: G06F-017/60

...SPECIFICATION is distributed in the encrypted form, on the user side. First, the system requires a cryptosystem for distributing an encryption key in the communication. Second, the system requires a cryptosystem for encrypting the data itself to be distributed. Third, the ...keys KPmc(n) and KPp(n), will be referred to as a "class" hereinafter. As secret keys common to the content reproducing circuit, the system employs a secret key Kcom, which is primarily utilized for obtaining license key Kc and restriction information for the...

14696

...later, as well as an authentication key KPma operated commonly in whole the distribution system. Secret key Kcom is a decryption key in the symmetric key cryptosystem, and therefore is held as the encryption key

- with public encryption key KPm(1) unique to memory card 110 without being encrypted with **secret key** Kcom. Therefore, step S134 is eliminated. Subsequently to step S132, steps 136a S148a are executed...
- ...repeated. Since license key Kc and reproducing circuit restriction control AC2 are not encrypted with **secret key** Kcom, but are encrypted with public encryption key Km(1) unique to memory card 110...
- ...for that license key Kc and reproducing circuit restriction information AC2 are not encrypted with **secret key** Kcom in the third embodiment. Thus, the operations in the third embodiment are substantially the...
- ...system according to the first embodiment, can be achieved although the system does not use **secret key** Kcom, which is symmetric to the content reproducing circuit (cellular phone), for performing the encryption...
- ...the distribution server and the cellular phone do not perform the encryption and decryption using **secret key** Kcom symmetric to the reproducing circuit. The reproducing device may be a device other than...

# 14/3,K/23 (Item 21 from file: 348)

DIALOG(R) File 348: EUROPEAN PATENTS

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#### 01311422

DATA DISTRIBUTION SYSTEM AND RECORDER FOR USE THEREIN
DATENVERTEILUNGSVORRICHTUNG UND ZUGEHORIGES AUFZEICHNUNGSGERAT
SYSTEME DE DISTRIBUTION DE DONNEES ET ENREGISTREUR UTILISE AVEC CE SYSTEME
PATENT ASSIGNEE:

Sanyo Electric Co., Ltd., (2206455), 5-5, Keihan-Hondori 2-chome,, Moriguchi-shi, Osaka 570-8677, (JP), (Applicant designated States: all)

PFU LIMITED, (930123), Nu-98-2, Aza-Unoke, Unoke-machi, Kahoku-gun Ishikawa 929-1125, (JP), (Applicant designated States, all)

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Kawasaki-shi, Kanagawa 211-8588, (JP), (Applicant designated States: all)

Hitachi, Ltd., (204145), 6 Kanda Surugadai 4-chome, Chiyoda-ku, Tokyo 101-8010, (JP), (Applicant designated States: all)

Nippon Columbia Co., Ltd., (2395621), 14-14 Akasaka 4-chome, Minato-ku, Tokyo 107-8011, (JP), (Applicant designated States: all) INVENTOR:

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TONEGAWA, Tadaaki, Semicond. & Integr. Circuits, Hitachi, Ltd., 20-1, Josuihoncho 5-chome, Kodaira-shi, Tokyo 187-8588, (JP)

ANAZAWA, Takeaki, Nippon Columbia Co., Ltd., 14-14, Akasaka 4-chome,

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LEGAL REPRESENTATIVE:

Glawe. Delfs. Moll (100699), Patentanwalte Postfach 26 01 62, 80058

Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 1237326 Al 020904 (Basic)

WO 2001043342 010614

APPLICATION (CC, No, Date): EP 2000979088 001205; WO 2000JP8593 001205

PRIORITY (CC, No, Date): JP 99346861 991206

DESIGNATED STATES: DE; FR; GB

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: H04L-009/32; G06F-012/14; G10K-015/02;

G06F-013/00

ABSTRACT WORD COUNT: 86

NOTE:

Figure number on first page: 0006

LANGUAGE (Publication, Procedural, Application): English; English; Japanese FULLTEXT AVAILABILITY:

Available Text Language Update Word Count

CLAIMS A (English) 200236 4572 SPEC A (English) 200236 13725

Total word count - document A 18297
Total word count - document B 0

Total word count - documents A + B 18297

...INTERNATIONAL PATENT CLASS: G06F-012/14 ...

# ... G06F-013/00

- ...SPECIFICATION of a cellular phone user, a system is initially required to be a system for **distributing** an **e**ncryption key in a communication, **secondly** the exact system encrypting content data to be distributed, and thirdly a configuration implementing decryption...a memory card externally communicates data, encryption keys Ks1-Ks4 are used to keep the **secret** . **Keys** Ks1-Ks4 are symmetric keys generated by server 30, cellular phone 100 or 102, memory...
- ...number i represents a number provided to distinguish each memory card. Furthermore, as a common secret key in a system there exists a secret key Kcom in a symmetric-key cryptosystem used mainly to obtain license key Kc. Secret key Kcom is held in both of a distribution server and a cellular phone and used...Ksl and then transmitted on data bus BS1, and a Kcom hold unit 322 holding secret key Kcom shared by reproduction circuits.

Data processing unit 310 further includes an encryption unit 324 using **secret key** Kcom to encrypt license key Kc and reproduction circuit control information AC2 received from distribution...

# ...bus BS2 for output.

Cellular phone 100 further includes a Kcom hold unit 1512 holding secret key Kcom set to be shared by reproduction circuits, a decryption unit 1514 using secret key Kcom to decrypt (Kc//AC2)Kcom output from decryption unit 1510, and outputting license key...324, which in turn encrypts license key Kc and reproduction circuit control information AC2 with secret key Kcom shared by reproduction circuit and obtained from Kcom hold unit 322 (step S130).

Encrypted...1) unique to memory card 110 and encrypted data (Kc//AC2)Kcom decryptable with common **secret key** Kcom is obtained on data bus BS4 (step S222).

Obtained encrypted data (Kc//AC2)Kcom...

... AC2 are accepted (step S226).

Decryption unit 1514 decrypts encrypted data (Kc//AC2)Kcom with secret key Kcom received from Kcom hold circuit 1512 and shared by reproduction circuits to accept license...that of the first embodiment in that the former does not provide encryption decryptable with secret key Kcom shared by reproduction circuits.

More specifically the data distribution system of the present embodiment...

- ...server His different from license server 10 in that the former excludes unit 322 holding secret key Kcom shared by reproduction circuits, and encryption unit 324 using secret key Kcom. More specifically, in license server 11 license key Kc and reproduction circuit control information...
- ...100 of the first embodiment in that the former excludes Kcom hold unit 1512 holding secret key Kcom shared by reproduction circuits and decryption unit 1514 using secret key Kcom.

More specifically, in cellular phone 101, corresponding to the fact that distribution server 31 does not provide encryption using **secret key** Kcom, encryption unit 1510 using session key Ks4 to effect decryption directly provides license key...

- ...card identical in configuration to the Fig. 6 memory card 110.

  Omitting the encryption using **secret key** Kcom shared by reproduction circuits results in a difference in operation in each of distribution...Kc and reproduction circuit control information AC2 obtained at step S128 are not encrypted with **secret key** Kcom and they are encrypted with public encryption key KPm(1) unique. to memory card...
- ...Kc and AC2 and thus used. Furthermore, step S228 is eliminated as the encryption using **secret key** Kcom is not applied to license key Kc or reproduction control information AC2.

  The remaining...
- ...those shown in Figs. 13 and 14 and thus will not be described.

  Thus, if secret key Kcom shared by reproduction circuits is not used, a data distribution system can be configured...More specifically, license key Kc and reproduction circuit control information AC2 that are encrypted with secret key Kcom in the form of (Kc//AC2)Kcom can be recorded in reproduction information hold...
- ...CLAIMS second decryption unit (1412) receiving said reproduction information and access restriction information encrypted with said second symmetric key and said second public encryption key and distributed from said content provision device, for decryption with said second symmetric key,
  - a third key...content provision device (10) further includes
  - a fifth key hold unit (322) holding a common **secret key** (Kcom) reproducible in said content reproduction unit, and
  - a third license data encryption unit (324) encrypting said reproduction information (Kc//AC2, (Kc//AC2)Kcom) with said common secret key for output to said first license data encryption unit (326); and said content reproduction unit further has
  - a sixth key hold unit (1512) holding said common secret key , and
  - a sixth decryption unit (1514) receiving an output of said fourth decryption unit (1510), decrypting said reproduction information with said common secret key held in said sixth key hold unit, and extracting said license key (Kc) for output...provided to record said access restriction information (AC1) therein, said recording device

```
further comprising:
               key hold unit (1421) holding a private decryption key
      (Km(i)) decrypting data encrypted with a...
 14/3,K/24
               (Item 22 from file: 348)
DIALOG(R) File 348: EUROPEAN PATENTS
(c) 2005 European Patent Office. All rts. reserv.
01308858
RECORDER
REKORDER
ENREGISTREUR
PATENT ASSIGNEE:
  Sanyo Electric Co., Ltd., (2206454), 5-5, Keihanhondori 2-chome,
    Moriguchi-shi, Osaka-fu 570-8677, (JP), (Applicant designated States:
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    Kawasaki-shi, Kanagawa 211-8588, (JP), (Applicant designated States:
    all)
  Hitachi, Ltd., (204145), 6 Kanda Surugadai 4-chome, Chiyoda-ku, Tokyo
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  Nippon Columbia Co., Ltd., (2395621), 14-14 Akasaka 4-chome, Minato-ku,
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LEGAL REPRESENTATIVE:
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PATENT (CC, No, Kind, Date): EP 1248248 A1 021009 (Basic)
                              .WO 2001041104
                                             010607
APPLICATION (CC, No, Date):
                               EP 2000979025 001129; WO 2000JP8457 001129
PRIORITY (CC, No, Date): JP 99340365 991130
DESIGNATED STATES: AT; BE; CH; DE; FR; GB; LI
EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI
INTERNATIONAL PATENT CLASS: G09C-001/00; H04L-009/08; H04L-009/32;
  G06F-017/60
NOTE:
  Figure number on first page: 5
LANGUAGE (Publication, Procedural, Application): English; English; Japanese
FULLTEXT AVAILABILITY:
Available Text
               Language
                            Update
                                      Word Count
      CLAIMS A
                (English)
                            200241
                                       1084
      SPEC A
                 (English)
                            200241
                                      13533
Total word count - document A
                                      14617
Total word count - document B
```

- ... INTERNATIONAL PATENT CLASS: G06F-017/60
- ...SPECIFICATION in the encrypted form, on the user side. First, the system requires a scheme for **distributing** an **encryption key** in the communication. **Second**, the system requires a scheme for encrypting the data itself to be distributed. Third, the...
- ...later, as well as an authentication key KPma operated commonly in whole the distribution system. Secret key Kcom is a decryption key in the symmetric key cryptosystem, and therefore is held as...data (Kc//AC2)Kcom are recorded in memory 1415 after being re-encrypted with symmetric secret key K(1).

Further, the content data can be distributed only after confirming the validities of...holding portion 1451 employed in place of K(1) holding portion 1450 holds predetermined symmetric **secret keys** K(1)x (1  $\leq$  x  $\leq$  N), which are N in number and are...

# 14/3,K/25 (Item 23 from file: 348)

DIALOG(R) File 348: EUROPEAN PATENTS

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#### 01308783

DATA DISTRIBUTION SYSTEM AND RECORDER FOR USE THEREIN
DATENVERTEILUNGSVORRICHTUNG UND ZUGEHORIGES AUFZEICHNUNGSGERAT
SYSTEME DE DISTRIBUTION DE DONNEES ET ENREGISTREUR A UTILISER DANS CE.
SYSTEME

# PATENT ASSIGNEE:

Sanyo Electric Co., Ltd., (2206455), 5-5, Keihan-Hondori 2-chome,, Moriguchi-shi, Osaka 570-8677, (JP), (Applicant designated States: all)

PFU LIMITED, (930123), Nu-98-2, Aza-Unoke, Unoke-machi, Kahoku-gun Ishikawa 929-1125, (JP), (Applicant designated States: all)

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Hitachi, Ltd., (204145), 6 Kanda Surugadai 4-chome, Chiyoda-ku, Tokyo 101-8010, (JP), (Applicant designated States: all)

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TONEGAWA, Tadaaki Semiconductor & Integr. Circuits, Hitachi, Ltd 20-1, Josuihoncho 5-chome, Kodaira-shi, Tokyo 187-8588, (JP)

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PATENT (CC, No, Kind, Date): EP 1237325 Al 020904 (Basic)

WO 2001041359 010607

APPLICATION (CC, No, Date): EP 2000978048 001201; WO 2000JP8497 001201

PRIORITY (CC, No, Date): JP 99345244 991203

DESIGNATED STATES: DE; FR; GB

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: H04L-009/32; G06F-012/14; G10K-015/02;

G06F-013/00

ABSTRACT WORD COUNT: 105

NOTE:

Figure number on first page: 0005

LANGUAGE (Publication, Procedural, Application): English; English; Japanese FULLTEXT AVAILABILITY:

Available Text Language Update Word Count CLAIMS A (English) 200236 5603 SPEC A (English) 200236 14095
Total word count - document A 19698
Total word count - document B 0
Total word count - documents A + B 19698

...INTERNATIONAL PATENT CLASS: G06F-012/14 ...

... G06F-013/00

- ...SPECIFICATION of a cellular phone user, a system is initially required to be a system for distributing an encryption key in a communication, secondly the exact system encrypting content data to be distributed, and thirdly a configuration implementing content data protection for preventing such distributed content data from...a memory card externally communicates data, encryption keys Ks1-Ks4 are used to keep the secret. Keys Ks1-Ks4 are symmetric keys generated by server 30, cellular phone 100 or 102, memory...
- ...number i represents a number provided to distinguish each memory card. Furthermore, as a common secret key in a system there exists a secret key Kcom in a symmetric-key cryptosystem used mainly to obtain license key Kc. Secret key Kcom is held in both of a distribution server and a cellular phone and used to encrypt license key Kc and decrypt and thus obtain the same, respectively.

Note that **secret key** Kcom in the symmetric-key cryptosystem may be replaced by a set of public encryption...

...data bus BS1.

Data processing unit 310 further includes a Kcom hold unit 322 holding secret key Kcom shared by reproduction circuits, an encryption unit 324 using secret key Kcom to encrypt license key Kc and reproduction circuit control information AC2 received from distribution...bus BS2 for output.

Cellular phone 100 further includes a Kcom hold unit 1512 holding secret key Kcom set to be shared by reproduction circuits, a decryption unit 1514 using secret key Kcom to decrypt (Kc//AC2)Kcom output from decryption unit 1510, and outputting license key...324, which in turn encrypts license key Kc and reproduction circuit control

for each said recording device,

- a fifth encryption unit (1452) using said **secret key** to encrypt data obtained from said third decryption unit (1422) decrypting an output of said...
- ...decryption key (Km(i)), and
  - a sixth decryption unit (1454) decrypting data encrypted with said secret key;
  - said first storage unit (1415) records therein data encrypted by said
     fifth encryption unit;
  - said fifth encryption unit encrypts data of said class revocation list (CRL) with said **secret** key; and
  - said second storage unit (2415) is arranged external to a security area (TRM) unreadable...
- ...provision device (10, 11) further includes
  - a sixth key hold unit (322) holding a common **secret key** (Kcom) reproducible in said content reproduction unit (1550), and
  - a third license data encryption unit (324) encrypting said first reproduction information with said common **secret key** for output to said first license data encryption unit (326); and
  - said content reproduction unit (1550) further has
  - a seventh key hold unit (1512) holding said common secret key , and
  - a seventh decryption unit (1514) receiving an output of said fourth decryption unit (1510), decrypting said first reproduction information with said common **secret key** held in said seventh key hold unit, and extracting said license key (Kc) for output...by said second encryption unit.
  - 37. The recording device of claim 33, further comprising:
  - a secret key hold unit (1450) holding a secret key (K(i)) different for each said recording device;
  - a **secret key** encryption unit (1452) using said **secret key** to effect encryption; and
  - a **secret key** decryption unit (1454) decrypting data encrypted with said **secret key**, wherein:
  - said first storage unit (1415) and said second storage unit (2415) are arranged external...

# 14/3,K/26 (Item 24 from file: 348)

DIALOG(R) File 348: EUROPEAN PATENTS

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# 01281923

# DATA PROVIDING SYSTEM AND METHOD THEREFOR

DATENVERMITTELNDES SYSTEM UND VERFAHREN HIERZU

SYSTEME ET PROCEDE PERMETTANT DE FOURNIR DES DONNEES

# PATENT ASSIGNEE:

Sony Corporation, (214028), 7-35, Kitashinagawa 6-chome, Shinagawa-ku, Tokyo 141-0001, (JP), (Applicant designated States: all)

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LEGAL REPRESENTATIVE:

Korber, Martin, Dipl.-Phys. (88321), Mitscherlich & Partner Patentanwalte Sonnenstrasse 33, 80331 Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 1132828 A1 010912 (Basic) WO 200122242 010329

APPLICATION (CC, No, Date): EP 2000961019 000914; WO 2000JP6308 000914

PRIORITY (CC, No, Date): JP 99309721 990917; JP 99309722 990917

DESIGNATED STATES: DE; FR; GB

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI INTERNATIONAL PATENT CLASS: G06F-015/00; G10K-015/02

ABSTRACT WORD COUNT: 111

NOTE:

Figure number on first page: 1

LANGUAGE (Publication, Procedural, Application): English; English; Japanese FULLTEXT AVAILABILITY:

Available Text Language Update Word Count CLAIMS A (English) 200137 31025 SPEC A (English) 200137 92868
Total word count - document A 123893
Total word count - document B 0

Total word count - documents A + B 123893

INTERNATIONAL PATENT CLASS: G06F-015/00 ...

...SPECIFICATION processing apparatus, the content key data and the usage control policy data stored in the **distributed key** file are **decrypted**, and the handling of the **distributed** content data is determined based on the related decrypted usage control policy data.

Also, a...apparatus, and the data processing apparatus by a management apparatus, wherein the management apparatus provides encrypted content key data and encrypted usage control policy data indicating the handling of the content data to...key file to the data processing apparatus, and the data processing apparatus decrypts the content key data and the usage control policy data stored in the distributed key file and determines...of a 30th aspect of the present invention is a data providing system having a plurality of data providing apparatuses, a data distribution apparatus, a plurality of management apparatuses, a database device, and a data processing apparatus, wherein...invention is a data providing system having a plurality of data providing apparatuses, a data distribution apparatus, a plurality of management apparatuses, a database device, and a data processing apparatus, wherein the data providing...key file received from the management apparatus from the data providing apparatus to the data distribution apparatus, and distributing a second module storing the provided content file and the key file from the data distribution apparatus...

...the distributed second module and determining the handling of the content data stored in the **distributed second** module based on the related decrypted usage control policy data.

Also, a data providing method...content files in the database device, the management apparatuses produce the key files storing the encrypted content key data and encrypted usage control policy data indicating the handling of the content data for the content data...of a 67th aspect of the present invention is a data providing system having a plurality of data providing apparatuses, a data distribution apparatus, a plurality of management apparatuses, a database device, and a data processing apparatus, wherein the data providing...management apparatus, a database device, and a data processing apparatus, wherein the data providing apparatus encrypts content data by using content key data, produces a content file storing the related encrypted content data, and stores the related...and certifies the legitimacy of the related public key data by attaching a signature by secret key data of the EMD service center 102 to the certificate data of the public key...

...content data C using the content key data Kc, and the signature data

```
...in claim 176, wherein
   said data distribution apparatus produces said signature data using its
                   key data and
   said data processing apparatus verifies the legitimacy of said signature
      data using public key data corresponding to said secret
  180.A data providing system as set forth in claim 179, wherein
   said data...
 14/3,K/27
               (Item 25 from file: 348)
DIALOG(R) File 348: EUROPEAN PATENTS
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01276898
CONTENTS MANAGEMENT SYSTEM, DEVICE, METHOD, AND PROGRAM STORAGE MEDIUM
INHALTSVERWALTUNGSSYSTEM, VORRICHTUNG, VERFAHREN UND PROGRAMMSPEICHERMEDIUM
SYSTEME, DISPOSITIF, PROCEDE ET SUPPORT DE PROGRAMME POUR LA GESTION DE
    CONTENUS
PATENT ASSIGNEE:
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LEGAL REPRESENTATIVE:
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PATENT (CC, No, Kind, Date):
                              EP 1128598 A1 010829 (Basic)
                               WO 200119017 010315
                               EP 2000956997 000907; WO 2000JP6089 000907
APPLICATION (CC, No, Date):
PRIORITY (CC, No, Date): JP 99253660 990907; JP 99253661 990907; JP 99253662 990907; JP 99253663 990907; JP 99264082
    990917; JP 99265866 990920
DESIGNATED STATES: DE; FR; GB
EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI
INTERNATIONAL PATENT CLASS: H04L-009/32; G06F-015/00; H04N-005/91;
  G11B-020/10; G10K-015/04; H04N-007/167
ABSTRACT WORD COUNT: 172
NOTE:
  Figure number on first page: 0020
LANGUAGE (Publication, Procedural, Application): English; English; Japanese
FULLTEXT AVAILABILITY:
Available Text Language
                                      Word Count
                            Update
      CLAIMS A (English)
                            200135
                                      29406
      SPEC A
                (English)
                            200135
                                      83907
Total word count - document A
                                     113313
Total word count - document B
Total word count - documents A + B 113313
... INTERNATIONAL PATENT CLASS: G06F-015/00
```

...SPECIFICATION not illustrated) to encryption processing section 633 and also holds save key Ksave)) unique to **encryption** processing section 633.

And recording and reproducing apparatus 630 has encrypted contents and content key Kco)) sent from first or second contents sending apparatus 600 or 610 received by sending and receiving section 631... network 5 via a user management section 18. In addition, a public key and a secret key of the electronic distribution center 1 as well as a public key and a secret key peculiar to equipment maintained by the user are all generated and managed, the public keys...and the handling policy to each of which the electronic signature is added using a secret key of the content provider 3 are hereinafter referred to as a content provider secure container...

...a hash function based on data that is desired to be transmitted and using a **secret key** of a public key encryption.

The hash function and the signature will be described. The....
...point on the elliptic curve, r is a digit of G, and Ks)) is a secret
key (0<Ks))<r). In step S2, a random number u is generated by...
data is not tampered, and is the data transmitted from the transmission
apparatus holding the secret key corresponding to the public key.
In step S11, if the signature data c and d...

...received data is tampered or is not data transmitted from the transmission apparatus holding the **secret key** corresponding to the public key.

Further, although SHA-1 is used as the hash function...

 $\ldots$  a public key and the other key that should be kept secret is called a secret  $\ensuremath{\,\,\mathrm{key}\,\,}$  .

The elliptic curve encryption method that is representative of the public key encryption method will...

- ...point on the elliptic curve, r is a digit of G, and Ks)) is a secret
  key (0<Ks))<r). In step S31, the encryption data uG is multiplied
  by the secret key Ks)). In step S32, the X coordinates of (X0)),
  Y0))) among the encryption data is...</pre>
- ...message, Y1)) is cancelled.

In this way, in the public key encryption method, with the **secret key** being Ks)) and the public keys being G, Ks))G, a key to be used... generation section 45, a signature with respect to the price information is generated using the **secret key** of the service provider 3 held in a tamper resistant memory (not shown) (as in...

...content provider secure container and the price information with an electronic signature added using the **secret key** of he service provider 3 are hereinafter referred to as a service provider secure container...ID, if necessary, or may be unnecessary because it is in the registration information), a **secret key** different for each apparatus, the save key Ksave)), the public key of the electronic distribution... encryption method. In this case, a stored key is not the common key, but the **secret key** peculiar to the extension section 66.)

The content key Kco)) that is encrypted by the...

...certificate (the public key certificate of an apparatus) of the public key corresponding to the **secret key** for each apparatus in the storage module 92, the registration information, the content provider secure...

- ...module in the encryption processing section 83, the individual ID for specifying an apparatus, the **secret key** that is different for each apparatus, the save key Ksave)), the public key of the...
- ...charge information is stored as well.) The certificate of the public key corresponding to the **secret key** for each apparatus in the encryption processing section 83, the contents encrypted by the content...
- ...storage medium exclusively for electronic distribution 120, the individual ID of the recording medium, the secret key different for each recording medium, the public key certificate corresponding to the secret key (which may be recorded in the external memory 123), the save key Ksave)) to be...and the handling policy and its signature. The signature is data generated by applying the secret key Kscp)) of the content provider 2 to a hash value generated by applying the hash...
- ...key Kd)), a handling policy and signatures. The signature is data generated by applying the **secret key** Kscp)) of the content provider 2 to a hash value generated by applying a hash...key Kl)), a handling policy and signatures. The signature is data generated by applying the **secret key** Kscp)) of the content provider 2 to a hash value generated by applying a hash...
- ...of the content provider 2, and signatures. The signature is data generated by applying the **secret key** (Ksca)) of the authentication station to a hash value generated by applying a hash function...
- ...by the delivery key Kd)), and signatures. The signature is data generated by applying the **secret key** Ksca)) of the authentication station to a hash value generated by applying a hash function...
- ...by the delivery key Kd)), and signatures. The signature is data generated by applying the **secret key** Ksca)) of the authentication station to a hash value generated by applying a hash function...
- ...is comprised of price information and signatures. The signature is data generated by applying the **secret key** Kssp)) of the service provider 3 to a hash value generated by applying a hash...
- ...provider secure container, price information and signatures. The signature is data generated by applying the **secret key** Kssp)) of the service provider 3 to a hash value generated by applying a hash...
- ...of the service provider 3, and signatures . The signature is data generated by applying the **secret key** Ksca)) of the authentication station to a hash value generated by applying a hash function...of the user apparatus, and the signatures. The signature is data generated by applying the **secret key** Ksca)) of the authentication station to a hash value generated by applying a hash function...bits + 160 bits + 160 bits = 448 bits), and generates signature data A.Sig with a **secret key** held by itself with respect to the data. Further, since scalar times of a base...and BV)) (x coordinates and Y coordinates), and generates signature data B.Sig with a **secret key** held by itself with respect to the data. Finally, the encryption processing section 65 transfers...

14/3,K/28 (Item 26 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
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```
MEMORY CARD
SPEICHERKARTE
CARTE MEMOIRE
PATENT ASSIGNEE:
  FUJITSU LIMITED, (211463), 1-1, Kamikodanaka 4-chome, Nakahara-ku,
    Kawasaki-shi, Kanagawa 211-8588, (JP), (Applicant designated States:
  Nippon Columbia Co., Ltd., (2395621), 14-14 Akasaka 4-chome, Minato-ku,
    Tokyo 107-8011, (JP), (Applicant designated States: all)
  Hitachi, Ltd., (204145), 6 Kanda Surugadai 4-chome, Chiyoda-ku, Tokyo
    101-8010, (JP), (Applicant designated States: all)
  Sanyo Electric Co., Ltd., (2206455), 5-5, Keihan-Hondori 2-chome,,
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    Kawasaki-shi, Kanagawa 211-8588, (JP)
  HATAKEYAMA, Takahisa, Fujitsu Limited, 1-1, Kamikodanaka 4-chome,
    Nakahara-ku, Kawasaki-shi, Kanagawa 211-8588, (JP)
  HASEBE, Takayuki, Fujitsu Limited, 1-1, Kamikodanaka 4-chome, Nakahara-ku
    , Kawasaki-shi, Kanagawa 211-8588, (JP)
  KOTANI, Seigou, Fujitsu Limited, 1-1, Kamikodanaka 4-chome, Nakahara-ku,
    Kawasaki-shi, Kanagawa 211-8588, (JP)
  FURUTA, Shigeki, Fujitsu Limited, 1-1, Kamikodanaka4-chome, Nakahara-ku,
    Kawasaki-shi, Kanagawa 211-8588, (JP)
  ANAZAWA, Takeaki, Nippon Columbia Co., Ltd., 14-14, Akasaka 4-chome,
    Minato-ku, Tokyo, (JP)
  TONEGAWA, Tadaaki, Semic./Integ.C. Hitachi Limited, 20-1, Josuihoncho
    5-chome, Kodaira-shi, Tokyo 187-8588, (JP)
  HIOKI, Toshiaki, Sanyo El. Co., Ltd., 5-5, Keihanhondori 2-chome,
    Moriguchi-shi, Osaka 570-8677, (JP)
  KANAMORI, Miwa, Sanyo El. Co., Ltd., 5-5, Keihanhondori 2-chome,
    Moriguchi-shi, Osaka 570-8677, (JP)
  HORI, Yoshihiro, Sanyo El. Co., Ltd., 5-5, Keihanhondori 2-chome,
    Moriguchi-shi, Osaka 570-8677, (JP)
LEGAL REPRESENTATIVE:
  Glawe. Delfs. Moll (100699), Patentanwalte Postfach 26 01 62, 80058
    Munchen, (DE)
PATENT (CC, No, Kind, Date): EP 1209657 A1 020529 (Basic)
                              WO 200113358 010222 ·
APPLICATION (CC, No, Date):
                              EP 2000950052 000809; WO 2000JP5339 000809
PRIORITY (CC, No, Date): JP 99226406 990810; JP 99349336 991208
DESIGNATED STATES: DE; FR; GB
EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI
INTERNATIONAL PATENT CLASS: G10K-015/02; G06F-015/00; G06F-017/60;
  H04L-009/08; H04L-009/32; G06K-019/00; H04H-001/00; H04M-003/42;
  HO4M-003/493; HO4M-011/08; GO1L-019/00
ABSTRACT WORD COUNT: 110
NOTE:
Figure number on first page: 5
LANGUAGE (Publication, Procedural, Application): English; English; Japanese
FULLTEXT AVAILABILITY:
Available Text Language
                           Update
                                     Word Count
      CLAIMS A
               (English)
                           200222
                                      2446
      SPEC A
                (English)
                           200222
                                     22741
Total word count - document A
                                     25187
Total word count - document B
                                         0
Total word count - documents A + B
                                     25187
```

22-Jul-05 02:13 PM

01268075

Sylvia Keys

...INTERNATIONAL PATENT CLASS: G06F-015/00 ...

#### ... G06F-017/60

...SPECIFICATION symmetric key encrypted by the first public encryption key, and applies a decryption process. The **first** symmetric **key** is updated and **distributed** for each communication of **encrypted** content data.

The **second key** hold unit stores a second public encryption key which is unique to each memory card...Kmedia, Kcard(n), and KPcard(n) are used, as will be described afterwards.

Furthermore, the **secret key** to maintain secrecy in data transfer with an external source of the memory card and...respect to each other as to the transfer of a session key and obtaining a **secret key** used in transmitting a session key to the other party.

The structure of cellular phone...

- ...CLAIMS encryption key corresponding to said memory card,
  - a first decryption processing unit (1404) receiving a **first** symmetric **key** updated and **distributed** for each communication of said **encrypted** content data, and encrypted with said first public encryption key to apply a decryption process...
- ...claim 3, wherein said second decryption processing unit receives license information data encrypted with said second public encryption key and further encrypted with said first symmetric key, distributed together with said content key, and applies decryption based on said first symmetric key,

wherein...

...claim 7, wherein said second decryption processing unit receives license information data encrypted with said **second** public encryption **key** and further **encrypted** with said **first** symmetric **key**, **distributed** together with said content key, and applies decryption based on said first symmetric key,

wherein...

14/3,K/29 (Item 27 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

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01171827

Method and system for securely handling information between two information processing devices

Verfahren und Vorrichtung zur gesicherten Datenverarbeitung zwischen zwei Verarbeitungsvorrichtungen

Procede et moyens de gestion securisee d'informations entre deux dispositifs de traitement de donnees
PATENT ASSIGNEE:

International Business Machines Corporation, (200128), New Orchard Road, Armonk, NY 10504, (US), (Applicant designated States: all)

Hansmann, Uwe, Birkenstrasse 30/1, 71155 Altdorf, (DE) Seliger, Frank, In den Kreben 25, 71157 Hildrizhausen, (DE) LEGAL REPRESENTATIVE:

Teufel, Fritz, Dipl.-Phys. et al (11857), IBM Deutschland

Sylvia Keys

Informationssysteme GmbH, Intellectual Property, Pascalstrasse 100,
70548 Stuttgart, (DE)

PATENT (CC, No, Kind, Date): EP 1022638 A2 000726 (Basic)

EP 1022638 A3 010502

APPLICATION (CC, No, Date): EP 100476 000111;

PRIORITY (CC, No, Date): EP 99100474 990112

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;

LU; MC; NL; PT; SE

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: G06F-001/00

ABSTRACT WORD COUNT: 128

NOTE:

Figure number on first page: 1

LANGUAGE (Publication, Procedural, Application): English; English; English FULLTEXT AVAILABILITY:

Available Text Language Update Word Count
CLAIMS A (English) 200030 1902
SPEC A (English) 200030 5206
Total word count - document A 7108
Total word count - document B 0
Total word count - documents A + B 7108

# INTERNATIONAL PATENT CLASS: G06F-001/00

- ...SPECIFICATION is in the possession of a number of plain-text/cypher-text pairs for a **secret key**. The **secret key** can be obtained by trial and error. The most trivial attack is to find out the **secret key** only through trial and error which is called "Brute force attack". By using a large...the public key prior to transmission of an information and only the owner of the **secret key** is enabled to decrypt again the encrypted message. In particular, that principle for the first...
- ...n = p x q wherein x = plain text, y = cypher text, e = public key, d =
  secret key, n = public modulus and p, q = secret prime numbers.
  For the further details of an...
- ...has not been altered during transmission. For generating a MAC, a cryptographic algorithm with one **secret key** which is known to both communication partners is utilized. For the calculation of a MAC...the user.

In a preferred embodiment of the invention, the encrypted information unit and the **encrypted first key** are **downloaded** from a central server, e.g. a server interconnected with the Internet, particularly from a...

...CLAIMS least one key.

4. Method according to claim 1 or 2, characterized in that the decrypted at least first key is transferred to the first information processing device (2) and the information unit is decrypted (29) on ...of claims 13 to 19, characterized in that the first device (2) comprises means to download the encrypted information unit, the encrypted first key, and/or the generated signature, and/or the control command, from a central server (4...

14/3,K/30 (Item 28 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
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#### 01158532

METHOD AND DEVICE FOR PROTECTING DIGITAL DATA BY DOUBLE RE-ENCRYPTION

VERFAHREN UND VORRICHTUNG ZUM SCHUTZ DIGITALER DATEN MITTELS DOPPELTER

WIEDERVERSCHLUSSELUNG

PROCEDE ET DISPOSITIF DESTINES A PROTEGER DES DONNEES NUMERIQUES PAR DOUBLE RECRYPTAGE

PATENT ASSIGNEE:

MITSUBISHI CORPORATION, (653514), 6-3 Marunouchi 2-chome, Chiyoda-ku, Tokyo 100-8086, (JP), (Applicant designated States: all) INVENTOR:

SAITO, Makoto, 2-12-6-104, Kaitori, Tama-Shi, Tokyo 206-0012, (JP) LEGAL REPRESENTATIVE:

Pfenning, Meinig & Partner GbR (100967), Mozartstrasse 17, 80336 Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 1122910 A1 010808 (Basic) WO 200022777 000420

APPLICATION (CC, No, Date): EP 99947922 991015; WO 99JP5704 991015 PRIORITY (CC, No, Date): JP 98309418 981015

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: H04L-009/14; G11B-020/10; H04N-007/167; G06F-017/60

ABSTRACT WORD COUNT: 189

NOTE:

Figure number on first page: 0008

LANGUAGE (Publication, Procedural, Application): English; English; Japanese FULLTEXT AVAILABILITY:

Available Text Language Update Word Count CLAIMS A (English) 200132 4006 SPEC A (English) 200132 13221

Total word count - document A 17227
Total word count - document B 0
Total word count - documents A + B 17227

...INTERNATIONAL PATENT CLASS: G06F-017/60

...SPECIFICATION the use request according to a digital signature on an edit program by combining a **secret** - **key** cryptosystem and a public-key cryptosystem.

Japanese Patent Laid-Open Publication 288940/1996 (USP5,740...audio interface 132 and the printer interface 133 of the copyright management apparatus 140.

A secret - key cryptosystem is often used as a cryptosystem for encrypting digital data. The most popular DES ( Data Encryption Standard) in the secret - key cryptosystems carries out encryption/decryption per 64-bit block unit of data. It is a typical block cipher method in the secret - key cryptosystem and has been widely adopted. Using this encryption/decryption per block processing allows to...

...CLAIMS data double re-encrypted by third-changeable-second-changeable keys to be copied or transferred;

decrypting said copied or transferred digital data double reencrypted by third-changeable- second -changeable keys by using
said third changeable key to digital data re-encrypted by the second
changeable...

...data double re-encrypted by third-changeable-second-changeable keys to

be copied or transferred;

- decrypting said copied or transferred digital data double reencrypted by third-changeable- second -changeable keys by using
  said third changeable key to digital data re-encrypted by the second
  changeable...
- ...data double re-encrypted by second-changeable-third-changeable keys to be copied or transferred;
  - decrypting said copied or transferred digital data double reencrypted by second -changeable-third-changeable keys by using
    said second changeable key to digital data re-encrypted by the
    third changeable key; and

decrypting said digital data...

- ...data double re-encrypted by second-changeable-third-changeable keys to be copied or transferred;
  - decrypting said copied or transferred digital data double re encrypted by second -changeable-third-changeable keys by using
     said second changeable key to digital data re-encrypted by the
     third changeable key; and
  - decrypting said digital data...by third-changeable-second-changeable keys to be copied or transferred;
  - a third changeable key decryption unit for decrypting said copied or transferred digital data double re-encrypted by third-changeable-second -changeable keys by using said third changeable key to digital data re-encrypted by the second changeable...
- ...by third-changeable-second-changeable keys to be copied or transferred; a third changeable key decryption unit for decrypting said copied or transferred digital data double re- encrypted by third-changeable-second -changeable keys by using said third changeable key to digital data re-encrypted by the second changeable changeable-third-changeable keys to be copied or transferred; and
  - a **second** changeable **key decryption** unit for **decrypting** said copied or **transferred** digital data double re- **encrypted** by **second** -changeable-third-changeable **keys** by using said **second** changeable **key** to digital data re-encrypted by the third changeable key, and a third changeable key...
- ...re-encrypted by second-changeable-third-changeable keys to be copied or transferred; and
  - a **second** changeable **key decryption** unit for **decrypting** said copied or **transferred** digital data double re- **encrypted** by **second** -changeable-third-changeable **keys** by using said **second** changeable **key** to digital data re-encrypted by the third changeable key, and a third changeable key...

# 14/3,K/31 (Item 29 from file: 348)

DIALOG(R) File 348: EUROPEAN PATENTS

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01156905

DISTRIBUTING ACCESS TO A DATA ITEM

ZUTEILUNG DES ZUGRIFFS AUF EINEN DATENSATZ

REPARTITION DE L'ACCES A UN ARTICLE DE DONNEES

PATENT ASSIGNEE:

Adobe Systems Incorporated, (1120815), 345 Park Avenue, San Jose, California 95110-2704, (US), (Proprietor designated states: all) INVENTOR:

KAWELL, Leonard, M., Jr., , Concord, MA, (US)

Sylvia Keys

```
DIAZ, Thomas, R., , Lexington, MA, (US)
HEINEN, Mary, Ellen, , Concord, MA, (US)
HEINEN, Rodger, J., Jr., , Islesboro, ME, (US)
LEGAL REPRESENTATIVE:
```

McLeish, Nicholas Alistair Maxwell et al (74621), Boult Wade Tennant Verulam Gardens 70 Gray's Inn Road, London WC1X 8BT, (GB)

PATENT (CC, No, Kind, Date): EP 1125182 A1 010822 (Basic)

EP 1125182 B1 030102 WO 2000020950 000413

APPLICATION (CC, No, Date): EP 99954794 991007; WO 99US23474 991007 PRIORITY (CC, No, Date): US 167888 981007

DESIGNATED STATES (Pub A): AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE; (Pub B): DE; GB

INTERNATIONAL PATENT CLASS: G06F-001/00 NOTE:

No A-document published by EPO

LANGUAGE (Publication, Procedural, Application): English; English; FULLTEXT AVAILABILITY:

```
Available Text Language
                           Update
                                     Word Count
      CLAIMS B (English)
                          200301
                                      1230
      CLAIMS B
                (German)
                          200301
                                       621
                          200301
      CLAIMS B
                 (French)
                                       742
      SPEC B
                          200301
                (English)
                                      8607
Total word count - document A
                                         0
Total word count - document B
                                     11200
Total word count - documents A + B
                                     11200
```

#### INTERNATIONAL PATENT CLASS: G06F-001/00

- ...SPECIFICATION to the data item. At least one of the transfers of permission may include the transfer of a first encryption key, and the method may include using a second encryption key to encrypt the first encryption key prior to transfer. The first encryption key may include a secret key and the second encryption key may include one of the keys in a public/private...each of the sender computers and recipient computers may rely on encryption devices known as secret keys and public/private key sets, and may include a highly secure mechanism, which may handle...
- ...more of the keys or key sets, or encrypted or unencrypted data, or both. A **secret key** (also known as a symmetric key) is a string of data (e.g., 40 bits...
- ...in a way that allows the other data to be de-encrypted using the same secret key. A public/private key set includes two strings of data (e.g., 1024 bits each...
- ... Security Dynamics, Inc., 1982.

A conventional general-purpose computer can be used to generate the secret key and the public/private key set, which can be stored in conventional computer files, as...implement a public/private key encryptor 56, a public/private key de-encryptor 58, a secret key encryptor 60, and a secret key de-encryptor 62. A permission data bank 64, a public key 66, a private key...

# ...known as Java.

In a specific embodiment, only the publisher computer is provided with a **secret key** encryptor (e.g., because the other computers are not originators of encrypted data items) and only the end-user computer is provided with the **secret key** de-encryptor (e.g., because the other

computers do not display or otherwise make significant...

...Figs. 8-14 illustrate a detailed example 72 of the usage permission transfer procedure. A secret key 74 (e.g., a randomly-generated 40-bit number) is used to encrypt book data 76 to produce secret key encrypted book data 78 (step 2010), which is stored at a sender computer (step 2020). (In a specific embodiment, the secret key is also appended to the secret key encrypted book data.)

The encrypted digest and the recipient computer's unique public key are

- ...response can be matched to the request at the recipient computer.) At the sender computer, secret key encrypted book data and a secret key and voucher corresponding to the request are selected (step 2130), and the recipient's unique public key is used to produce a public key encrypted secret key and voucher 94 (step 2140), which is transmitted along with the secret key encrypted book data to the recipient computer from the sender computer (steps 2150, 2160).

  At...
- ...recipient computer (Fig. 11), the recipient's unique private key is used to produce a **secret key** and voucher 98 (step 2180), and the **secret key** is used to produce unencrypted book data 100 from the **secret key** encrypted book data (step 2190).

At this point, the unencrypted book data may be displayed...book retailer). If the permission is lent or leased, the procedure also specifies that the **secret key** is associated with matching expiration times 102S and 102R (e.g., each corresponding to a two-week period) at the sender and recipient computers, respectively, so that the **secret key** cannot be used (and therefore the data item cannot be used) at the sender computer...

- ...In a case of giving or selling, the recipient computer is entitled to retain the **secret key** indefinitely, and to serve as a sender computer in a subsequent transaction. If at the...
- ...one end-user computer (e.g., itself) to gain access to the data item, the  ${\tt secret}$  key is erased at the sender computer after the recipient computer is provided with the  ${\tt secret}$  key .

In a case of leasing or selling, the permission may be provided in exchange for...

- ...In at least some cases, it is advantageous if at least the audit file, the **secret key**, the public/private key set, the permission data bank, the group private key, and the...
- ...the smartcard computer (i.e., are never presented at the connection circuitry), and if the **secret keys** are never transmitted in unencrypted form. The encrypted data item may be stored separately from ...known as Java.
  - In a specific embodiment, only the publisher computer is provided with a **secret key** encryptor (e.g., because the other computers are not originators of encrypted data items) and only the end-user computer is provided with the **secret key** de-encryptor (e.g., because the other computers do not display or otherwise make significant...
- ...Figs. 8-14 illustrate a detailed example 72 of the usage permission transfer procedure. A **secret key** 74 (e.g., a randomly-generated 40-bit number) is used to encrypt book data 76 to produce **secret key** encrypted book data 78 (step 2010), which is stored at a sender computer

**secret** key and the second encryption key includes one of the keys in a public/private key...

```
(Item 30 from file: 348)
 14/3,K/32
DIALOG(R) File 348: EUROPEAN PATENTS
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01030324
MOBILE ELECTRONIC COMMERCE SYSTEM
MOBILES ELEKTRONISCHES HANDELSSYSTEM
SYSTEME DE COMMERCE ELECTRONIQUE MOBILE
PATENT ASSIGNEE:
  MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD, (216884), 1006, Oaza-Kadoma,
    Kadoma-shi, Osaka 571-0000, (JP), (Applicant designated States: all)
INVENTOR:
  TAKAYAMA, Hisashi, 5-6-12-104, Matsubara, Setagaya-ku, Tokyo 156-0043,
    (JP)
LEGAL REPRESENTATIVE:
  Grunecker, Kinkeldey, Stockmair & Schwanhausser Anwaltssozietat (100721)
    , Maximilianstrasse 58, 80538 Munchen, (DE)
PATENT (CC, No, Kind, Date): EP 950968 A1 991020 (Basic)
                              WO 9909502 990225
APPLICATION (CC, No, Date):
                              EP 98937807 980813; WO 98JP3608 980813
PRIORITY (CC, No, Date): JP 97230564 970813
DESIGNATED STATES: DE; FR; GB
RELATED DIVISIONAL NUMBER(S) - PN (AN):
     (EP 2004015278)
INTERNATIONAL PATENT CLASS: G06F-017/60
ABSTRACT WORD COUNT: 150
NOTE:
  Figure number on first page: 1
LANGUAGE (Publication, Procedural, Application): English; English; Japanese
FULLTEXT AVAILABILITY:
Available Text Language
                           Update
                                     Word Count
      CLAIMS A (English)
                           9942
                                     17239
      SPEC A
                (English)
                           9942
                                    160346
Total word count - document A
                                    177585
Total word count - document B
Total word count - documents A + B 177585
INTERNATIONAL PATENT CLASS: G06F-017/60
```

...SPECIFICATION and then transmits the ticket transfer offer message, via the wireless communication means to the **second** electronic wallet; the **second** electronic wallet, upon receiving the ticket **transfer** offer message, generates a ticket **transfer** offer response message indicating the contents of the ticket transfer offer message are acceptable, and... 108, and between the service system 110 and the telephone card issuing system 109. A **secret key** and a public key are employed for encrypting the information, and the encrypted information is...1511, the audio codec 1512 and the channel codec.

The cryptographic processor 1505 includes a **secret key** encryption and decryption function and a public key encryption and decryption function. The cryptographic processor...data encryption key register (CRYPT) 1613 in which is stored an encryption key for the **secret key** cryptography method that is employed for encryption and decryption of audio data. When the audio...

```
14/3,K/33 (Item 31 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
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#### 00968151

Data content dealing system

System zum Behandeln von Dateninhalten

Systeme de transaction de contenu de donnees

PATENT ASSIGNEE:

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PATENT (CC, No, Kind, Date): EP 878753 A2 981118 (Basic)

EP 878753 A3 010912

APPLICATION (CC, No, Date): EP 98107668 980428;

PRIORITY (CC, No, Date): JP 97126357 970430

DESIGNATED STATES: BE; CH; DE; ES; FR; GB; IT; LI; NL

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: G06F-001/00

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Figure number on first page: 1

LANGUAGE (Publication, Procedural, Application): English; English; FULLTEXT AVAILABILITY:

Available Text Language Update Word Count CLAIMS A (English) 9847 963
SPEC A (English) 9847 13156
Total word count - document A 14119
Total word count - document B 0
Total word count - documents A + B 14119

# INTERNATIONAL PATENT CLASS: G06F-001/00

...SPECIFICATION to the key management center. On receiving the copyright management program, the key management center transfers the first crypt key corresponding to the specific usage and a second crypt key K2 together with the copyright management program to the first user via a communication network. On receiving the first crypt...basic encryption-related technique used in the present invention will be described below.

## --Crypt key--

**Secret - key** system is also called "common key system" because the same key is used for encryption...

...and because it is necessary to keep the key in secret, it is also called "secret - key system". Typical examples of encryption algorithm using secret - key are: DES (Data Encryption Standard) ...of NTT, and MISTY system of Mitsubishi Electric Corp. In the embodiments described below, the secret - key is referred as "Ks".

In contrast, the public-key system is a cryptosystem using a...

...to encrypt data content, a plain text material M to a cryptogram Cmks using a **secret - key** Ks is expressed as:

Cmks = E (M, Ks).

The operation to decrypt the cryptogram Cmks...the second public-key Kb2 that are prepared by a first user, and a first secret - key Ks1 and a second secret - key Ks2 prepared by the database. The database uses the first secret - key Ks1 to encrypt data content M:

Cmks1 = E (M, Ks1)

and further encrypts the first **secret** - **key** Ksl by the first public-key Kbl:

Cks1kb1 = E (Ks1, Kb1)

and the second secret - key Ks2 by the second public-key Kb2:

Cks2kb2 = E (Ks2, Kb2).

The database then transmits these encrypted data content Cmksl and the first and the second **secret - keys** Ckslkbl and Ck2kb2 to the first

The first user decrypts the encrypted first **secret - key** Cks1kb1 using the first private-key Kv1:

Ks1 = D (Kv1, Cks1kb1),

and decrypts the encrypted data content Cmksl by the decrypted first secret - key Ksl:

M = D (Ks1, Cmks1)

and uses it. The user decrypts encrypted second **secret - key** Cks2kb2 by the second private-key Kv2:

Ks2 = D (Kv2, Cks2kb2),

which is subsequently used...The original data contents M1, M2 and M3 are encrypted using each of the second **secret - keys** Ks21, Ks22, Ks23 supplied with each of data contents M1, M2 and M3 when used...

- ...M5 and M6, of original data contents are also encrypted using each of the second **secret keys** Ks21, Ks22, Ks23 supplied with each of the original data contents when used for operations...
- ...content parts Cm4ks21, Cm5ks22 and Cm6ks23, and the edit program Pe, second user requests second **secret keys** Ks21, Ks22, Ks23 for decryption of the encrypted original data content parts Cm4ks21, Cm5ks22 and...
- ...user is a valid user to use the original data content to which the second secret keys Ks21, Ks22, Ks23 correspond. If the first user is the valid user, the center transmits the second secret keys Ks21, Ks22, Ks23 to second user. Otherwise, it does not transmit the second secret keys Ks21, Ks22, Ks23 to the second user.

The digital signature Spe presented to the copyright...

...content.

(Embodiment 2)

Embodiment 2 is described referring to Figure 3. This embodiment uses first secret - key Ks1, second secret - key Ks2, third secret - key

- ...scenario market management center to advertise and auction said editing scenario and to change the **secret key** for said editing scenario from the data content editor's **secret key** into the scenario seller's **secret key**; and
  - a database comprising
  - the original data content as a data object; and
  - said edited...

... stored in said database,

- encrypting the editing scenario of said edited data content by his secret - key , depositing the encrypted editing scenario in said database and depositing said secret - key in said key management center by said data content editor
- auctioning and transferring of his **secret key** for said editing scenario to said key management center for said editing scenario seller wishing...
- ...scenario by an editing scenario market management center; and.
  - changing the data content editor's **secret key** into the editing scenario's seller's key by said editing scenario dealing management center...

# 14/3,K/34 (Item 32 from file: 348)

DIALOG(R) File 348: EUROPEAN PATENTS

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#### 00954013

Data management system

Datenverwaltungssystem

Systeme de gestion de donnees

PATENT ASSIGNEE:

MITSUBISHI CORPORATION, (653510), 6-3, Marunouchi 2-chome, Chiyoda-ku, Tokyo 100-0005, (JP), (Applicant designated States: all) INVENTOR:

Saito, Makoto, 2-12-6-104, Kaitori, Tama-shi, (JP)

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PATENT (CC, No, Kind, Date): EP 864959 A2 980916 (Basic)

EP 864959 A3 010919

APPLICATION (CC, No, Date): EP 98104490 980312;

PRIORITY (CC, No, Date): JP 9776555 970312

DESIGNATED STATES: BE; CH; DE; ES; FR; GB; IT; LI; NL

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: G06F-001/00

ABSTRACT WORD COUNT: 238

NOTE:

Figure number on first page: 1

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Available Text Language Update Word Count

CLAIMS A (English) 9838 2965 SPEC A (English) 9838 9634

Total word count - document A 12599

Total word count - document B 0
Total word count - documents A + B 12599

INTERNATIONAL PATENT CLASS: G06F-001/00

- ...SPECIFICATION persons other than the participants of the conference are protected by the cryptosystem using a secret key.
  - However, since the conference content obtained by the participants themselves are decrypted, in the case...

# ...public.

The digital cash system which has been proposed so far is based on a **secret - key** cryptosystem. The encrypted digital cash data content is transferred from a bank account or a...

...basic encryption-related technique used in the present invention will be described below.

# --Crypt key--

**Secret - key** system is also called "common key system" because the same key is used for encryption...

- ...and because it is necessary to keep the key in secret, it is also called "secret key system". Typical examples of encryption algorithm using secret key are: DES (Data Encryption Standard) system of National Bureau of Standards, FEAL (Fast Encryption Algorithm...
- ...of NTT, and MISTY system of Mitsubishi Electric Corp. In the embodiments described below, the **secret key** is referred as "Ks".

  In contrast, the public-key system is a cryptosystem using a...
- ...to encrypt data content, a plain text material M to a cryptogram Cks using a secret key Ks is expressed as: The operation to decrypt the cryptogram Cks to the plain text data content M using a secret key Ks is expressed as: Also, the operation to encrypt the plain text ...key escrow system or a key recovery system is used in practical application. Further, the secret key can be used as user data and the secret -

key is encrypted using the public-key of the data center and this is entered as...

- ...this using the private-key of the data center when necessary and by confirming the **secret key**, it is possible to achieve a key escrow system or a key recovery system in...
- ...and a public-key Kb1 of the first user, and requests the distribution of a secret key Ks1 for decryption and a secret key Ks2 for re-encryption.

As the user data, a user ID, a user E-mail address or a **secret - key** generated at the user's request for **secret - key** can be used. Further, random number ...hash algorithm, can be used as the user data.

- (3) The key center generates the **secret keys** Ks1 and Ks2 and stores them together with the data content name Tm0, the first user data I1 and the first user public-key Kb1, and the **secret keys** Ks1 and Ks2 are encrypted using the first user public-key Kb1: and the encrypted **secret keys** Cks1kb1 and Cks2kb1 are distributed to the first user.
- (4) The first user U1 decrypts the distributed encrypted secret keys Cks1kb1 and Cks2kb1 using the first user private-key Kv1:

The decrypted secret - keys Ksl and Ks2 are stored in the device. The user is not the owner of the secret - keys Ksl and ks2, but the key center or the data center is the owner. Because there may be possibility of improper use of the secret - keys if the management of the secret - keys is made by the user, the secret - keys Ksl and Ks2 are automatically stored in IC card, PCMCIA card, insert board or software...

...user's control.

Here, the fee to use the data content MO is charged.

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14/3,K/35
               (Item 33 from file: 348)
DIALOG(R) File 348: EUROPEAN PATENTS
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00912775
Secure data management system
Gesichertes Datenverwaltungssystem
Systeme securise de gestion de donnees
PATENT ASSIGNEE:
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    Tokyo 100-0005, (JP), (Proprietor designated states: all)
INVENTOR:
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    Pagenberg . Dost . Altenburg . Geissler Galileiplatz 1, 81679 Munchen,
PATENT (CC, No, Kind, Date): EP 833241 A2
                                             980401 (Basic)
                              EP 833241 A3
                                             990818
                              EP 833241 B1
                                             050511
APPLICATION (CC, No, Date):
                              EP 97116728 970925;
PRIORITY (CC, No, Date): JP 96277125 960927
DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FI; FR; GB; IT; LI; LU; NL; PT;
EXTENDED DESIGNATED STATES: AL; LT; LV; RO; SI
INTERNATIONAL PATENT CLASS: G06F-001/00
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NOTE:
  Figure number on first page: 3A 3B 3C 3D
LANGUAGE (Publication, Procedural, Application): English; English; English
FULLTEXT AVAILABILITY:
Available Text Language
                           Update
                                     Word Count
                           199814
      CLAIMS A (English)
                                        2249
      CLAIMS B
               (English)
                           200519
                                       875
      CLAIMS B
                 (German)
                           200519
                                       833
      CLAIMS B
                 (French)
                           200519
                                      1086
      SPEC A
                (English)
                           199814
                                       13906
     · SPEC B
               (English)
                          200519
                                     14116
Total word count - document A
                                     16158
Total word count - document B
                                     16910
Total word count - documents A + B
                                     33068
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# INTERNATIONAL PATENT CLASS: G06F-001/00

- ... SPECIFICATION who use the network. The data management center certifies public-key of network users, distributes secret - key for data encryption corresponding to presentation of a user label, and identifies data utilization status by the request of the secret - key . The data is stored and transferred after having been encrypted using the secret key , and the data is to be stored and transferred encrypted using a secret - key different from the secret - key for the data which has been transferred. An original data label is added to an...
- ...label and the data relating to editing. A user label is used to request the secret - key , but electronic fingerprinting of the user label may be used instead.

The second aspect of ...

...network, data which is transferred from a maker to a user is encrypted by a **secret** - **key** for encryption, and data which is transferred from the user to the maker is encrypted by a **secret** - **key** for re-encryption.

#### BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1A to Fig. 1D each represents...

- ...In this system, a set of public-key & private-key of each user and a secret key different for each step of the use of the copyrighted data are used. Among these...
- ...be given on a key system and a digital signature system used in the invention.

Secret - key system is also called "common key system" because the
same key is used for encryption...

- ...decryption. Because it is necessary to keep the key in secret, it is also called "secret key system". Typical examples of encryption algorithm using secret key are: DES (Data Encryption Standard) system of National Bureau of Standards, FEAL (Fast Encryption Algorithm...
- ...of NTT, and MISTY system of Mitsubishi Electric Corp. In the embodiments described below, the **secret key** is referred as "Ks".

In contrast, the public-key system is a cryptosystem using a...carried out as explained in the third embodiment. In the system of the present embodiment, secret - key and public-key & private-key are used. Therefore, an entity to manage public-key and an entity to generate secret - key may be linked to or included in the data management center.

- (1) An original author...
- ...original copyright label LO and requests the data management center Cd to distribute an original **secret key** KsO. The original author may transfer or deposit the original copyrighted data to an information...
- ...the original author. It is also possible that the original author A stores the origins <code>secret key</code> KsO and encrypts the original copyrighted data MO without depending on the data management center Cd, while the original <code>secret key</code> KsO must be stored at the data management center Cd to utilize the original copyrighted data MO by the user (data user).
  - (2) When the distribution of the original secret key Ks0 is requested, the data management center Cd encrypts the original secret key Ks0 corresponding to the original copyright label L0 using a public-key Kba of the original author A: and distributes the encrypted original secret key Cks0kba together with the original copyright label L0 to the original author A.

The **secret - key** is hereafter, encrypted by a public-key of a distributed destination in order to be...

- ...this electronic fingerprint is transferred together with the copyrighted data.
  - (3) When the encrypted original secret key Cks0kba is distributed, the original author A decrypts the encrypted original secret key Cks0kba using the private-key Kva of the original author A: encrypts the original copyrighted data MO using the decrypted original secret key Ks0: and transfers the encrypted original copyrighted data Cm0ks0, the original copyright label LO and...

agency;

Decryption of encrypted secret - key for re-encryption by using private-key of said user, decryption of encrypted electronic commerce data by using decrypted secret - key for re-encryption, making of order sheet by entering order content into decrypted electronic commerce data, encrypting said order sheet by using secret - key for re-encryption, and transfer of encrypted order sheet to said agency by said user;

Decryption of said encrypted order sheet by using said **secret - key** for re-encryption, encryption of the decrypted order sheet by using public-key of said...

# 14/3,K/36 (Item 34 from file: 348)

DIALOG(R) File 348: EUROPEAN PATENTS

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#### 00907546

Method and apparatus for cryptographically protecting data Verfahren und Vorrichtung zum kryptographischen Schutz von Daten Methode et dispositif pour la protection cryptographique de donnees PATENT ASSIGNEE:

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AT; BE; CH; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE)

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PATENT (CC, No, Kind, Date): EP 828210 A2 980311 (Basic)

EP 828210 A3 990414

APPLICATION (CC, No, Date): EP 97306098 970811;

PRIORITY (CC, No, Date): US 707691 960904

DESIGNATED STATES: DE; FR; GB

INTERNATIONAL PATENT CLASS: G06F-001/00

ABSTRACT WORD COUNT: 69

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CLAIMS A (English) 9811 2166
SPEC A (English) 9811 3126
Total word count - document A 5292
Total word count - document B 0
Total word count - documents A + B 5292

# INTERNATIONAL PATENT CLASS: G06F-001/00

- ...SPECIFICATION interaction necessary with a registration authority. Since each digital asset is encrypted with a special **secret key** (lambda)T)) for that specific asset, and can be played or used only when the...
- ...such as, for example, software, music, art, books, videos, etc., is encrypted with its own **secret key** so that the asset is locked. To simplify the description of the present invention, the...

- ...of the present invention can be broadcast freely because it cannot be played unless the **secret key** for the piece is known. The music piece can be obtained from any medium, such...
- ...decryption, and stream decryption in a well-known manner. Personality module PM also stores a **secret key** p and a public key PuA from a certification authority in a memory or database...
- ...a plurality of personality modules. Each personality module owned by a user has the same **secret key** (rho). Thus, the user can simultaneously play a particular piece of music on as many...common trusted authority. After successful authentication, the certification module enables the vendor to send the **secret key** to the buyer's personality module for the purchased piece of music so that the music can be played. The transmission of the **secret key** for the purchased music is encrypted so there is no need for physical contact between...
- ...public key Pu<e>, a private key Pr<e> and a **secret key** <(epsilon)>. Plaintext p encrypted by a key k is denoted as k(p...
- ...a certifying authority A has a public key PuA, a private key PrA and a **secret key** (alpha). A certifying authority certifies the authenticity of keys used by music publishing labels and...
- ...denoted as entity L, has a public key PuL, a private key PrL and a secret key (lambda). Players, denoted at P, are hardware devices (Figure 1) that are manufactured by manufacturer M. Each player plays music and contains a personality module PM that has a secret key (rho). Vendors, denoted as V, distribute music, and generally speaking, have a certification module CM...
- ...denoted as T, represents a piece of music being sold. Each title has an associated **secret key** (lambda)T)) determined by the music publishing label L.

Consider the example of a music...

...publishing label L.

At step 302, the music publishing label L stores the label's secret key (lambda), the label's private key PrL, the certification authority's public key PuA, a...key encryption and decryption.

Publishing label L encrypts the piece of music T using a **secret key** for that particular piece of music (lambda)T)) to obtain (lambda)T))(T). Label L also encrypts the **secret key** (lambda)T)) using **secret key** (lambda) to obtain (lambda)((lambda)T))). At step 303, publishing label L sends the encrypted...

- ...304 by a manufacturer M by encrypting the publicly-known character string X using the **secret key** (rho) for the personality module to obtain (rho)(X). Manufacturer M then provides (rho)(X...
- ...are provided to manufacturer M.

At step 305, manufacturer M stores the personality module's **secret** key (rho), the certification PrA((rho)X), the certification authority's public key PuA and a...

...the publishing label's public key PuL. Personality module PM uses PuL to encrypt PM **secret key** (rho) and certificate PrA(pX), which are both transferred to certification module CM.

At step 308, certification module CM uses the publishing label's secret key PrL to decrypt the personality module's secret key

encrypted using the first secret key (rho).

36. The personality module according to claim 35, wherein the transceiver receives the encrypted second **secret key** (rho)((lambda)T))) and the selected information, and

wherein the database decrypts the second **secret key** (lambda)T)) using the first **secret key** (rho) stored in the database, and decrypts the encrypted selected information using the second **secret key** (lambda)T)) decrypted by the personality module.

- 37. The personality module according to claim 36...
- ...an encrypted first public key PrA(PuL), a second public key PuA, an
  encrypted first secret key (lambda)((lambda)T))), a second
  secret key (lambda), a first private key PrL and first
  certification information, the first public key PuL being encrypted
  using a second private key PrA, and the first secret key
  (lambda)T)) being encrypted using the second secret key (lambda);
  and
  - a transceiver receiving second certification information, the certification module verifying the second certification...
- ...claim 40, wherein the second certification information received by the transceiver includes an encrypted third secret key PuL((rho)) and the first ...information encrypted with the first public key, the second private key PrA and the third secret key (rho).
  - 42. The certification module according to claim 41, wherein the certification module decrypts the encrypted third **secret key** PuL((rho)) using the second private key PrL stored in the database, decrypts the encrypted...
- ...private key PrL stored in the database, the second public key PuA and the third **secret key** (rho) decrypted by the certification module, and

wherein the certification module enables transmission of the...

...certification module according to claim 42, wherein the selected information is encrypted with the first **secret key** (lambda)T))(T), and

wherein, when the second certification information matches the first certification information, the certification module encrypts the first secret key (lambda)T))(T) using the third secret key (rho) decrypted by the certification module, and the encrypted first secret key (rho)((lambda)T))) is transmitted by the transceiver.

- 44. The certification module according to claim...
- ...wherein the second certification information is the first certification information X encrypted using the third **secret key** (rho), and further encrypted by the first private key PrA.
  - 45. The certification module according...

14/3,K/37 (Item 35 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
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00760259

Apparatus for data copyright management system

Gerat fur Dateiurheberrechte-Verwaltungssystem

Appareil pour systeme de gestion de droits d'auteur de donnees

#### PATENT ASSIGNEE:

MITSUBISHI CORPORATION, (653510), 6-3, Marunouchi 2-chome, Chiyoda-ku, Tokyo 100-0005, (JP), (Proprietor designated states: all)

INVENTOR:

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Momiki, Shunichi, 4-20-66, Kumegawa-cho, Higashimur-ayama-shi, Tokyo,

LEGAL REPRESENTATIVE:

Pfenning, Meinig & Partner (100961), Mozartstrasse 17, 80336 Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 715241 A2 960605 (Basic)

EP 715241 A3 990203 EP 715241 B1 040114

APPLICATION (CC, No, Date): EP 95116615 951021;

PRIORITY (CC, No, Date): JP 94264200 941027; JP 94299835 941202

DESIGNATED STATES: DE; FR; GB

INTERNATIONAL PATENT CLASS: G06F-001/00; H04N-007/167

ABSTRACT WORD COUNT: 375

NOTE:

Figure number on first page: 3

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Available	Text	Language	Update	Word Count
CLAI	MS A	(English)	EPAB96	539
CLAI	MS B	(English)	200403	456
CLAI	MS B	(German)	200403	421
CLAI	MS B	(French)	200403	520
SPEC	Α	(English)	EPAB96	15016
SPEC	В	(English)	2004:03	15037
Total word	count	- document	. A	15559
Total word	count	- document	: В	16434
Total word	count	- document	s A + B	31993

## INTERNATIONAL PATENT CLASS: G06F-001/00 ...

... SPECIFICATION is described below, general description is made for cryptography at first.

The cryptography includes a secret - key cryptosystem and a public-key cryptosystem.

The secret - key cryptosystem is a cryptosystem using the same crypt key for encryption and decryption. While this cryptosystem requires only a short time for encryption or decryption, the secret - key is found, and thus, the cryption may be cryptanalized.

The public-key cryptosystem is a...

... M is expressed as (Formula omitted)

The cryptosystem used for the present invention uses a secret - key cryptosystem in which the same secret - key Ks is used for encryption and decryption, and a public-key cryptosystem in which a...

...supplied in accordance with a request from the primary user 4. This system rises the secret - key cryptosystem and the public-key cryptosystem as a cryptosystem.

It is matter of course that...

...copyright management center 3 as the primary user information Iul. The database 1 prepares two secret - keys , that is, first secret key Ks1 and second secret - key Ks2.

In the prepared first secret - key Ks1 and second secret - key Ks2,

the second **secret - key** Ks2 is also previously transferred to the copyright management center 3.

As the result of...

- ...to primary utilization, the primary user information Iul, original copyright information IcO and the second **secret key** Ks2 are stored in the copyright management center 3. In this case, the original copyright...
- ...request of the primary user. The read original data MO is encrypted by the first **secret key** Ks1: (Formula omitted)

  The encrypted data CmOks1 is provided with the uncrypted original

copyright information Ico.

The first **secret - key** Ksl is encrypted by the first public-key Kbl and the second **secret - key** Ks2 is encrypted by the second public-key kb2: (Formula omitted) (Formula omitted)

While the **copyright** management program P is also **encrypted** by the **second secret - key** Ks2 (Formula omitted) the copyright management program P must not always be encrypted by the second **secret - key** Ks2 but it may be encrypted by any other proper crypt key.

The encrypted original data Cm0ks1, encrypted copyright management program Cpks2, and two encrypted **secret - keys** Cks1kb1 and Cks2kb2 are transferred to the primary riser terminal 4 via the communication network...

#### ...from the database 1.

The primary user receiving the encrypted original data Cm0ks1, two encrypted secret - keys Cks1kb1 and Cks2kb2, and encrypted copyright management program Cpks2 from the database 1 decrypts the encrypted first secret - key Cks1kb1 by the database utilization software using the first private-key Kv1 corresponding to the first public-key Kb1: (Formula omitted) and decrypts the encrypted second secret - key Cks2kb2 using the second private-key Kv2 corresponding to the second public-key Kb2: (Formula omitted)

And the primary user **decrypts** the **encrypted copyright** management program Cpks2 using the **decrypted second secret - key** Ks2: (Formula omitted)

Finally, the primary user decrypts the **encrypted** data Cm0ks1 by the **decrypted copyright** management program P using the **decrypted first secret** - **key** Ks1: (Formula omitted) and uses the decrypted original data M0 directly or data M1 as...

...data MO or the edited data M1, it is encrypted and decrypted by the second secret - key Ks2: (Formula omitted) (Formula omitted)

The decrypted second secret - key Ks2 is thereafter used as a crypt key for encrypting/decrypting data when storing, copying...

#### ...transmitting the data.

The first private-key Kv1 and second private-key Kv2, the first secret - key Ks1 and second secret - key Ks2, the data M, the copyright management program P, the original copyright information Ic, and...

- ...to be distributed. Since the copyright information label provides a clue to obtain the second **secret key** Ks2 which is the key for decryption, the second **secret key** Ks2 cannot be obtained in the case where the copyright information label is removed from...
- ...When the encrypted data Cmks2 is stored in the primary user terminal 4, the second **secret key** Ks2 is stored in the terminal 4. However, when the encrypted data Cmks2 is not...

conference.

The video conference participant 122 receiving the first secret - key Ks1 generates the second secret - key Ks2 by the first secret - key Ks1 using the video conference data management program P:

The generated second secret - key Ks2 is stored in the terminal.

The video conference participant 121 encrypts the video conference data M0 with the first **secret** - **key** Ks1, in the video conference through the communication network 2: and transfers the encrypted video...

...video conference participant 122 who receives the video conference data Cm0ksl encrypted by the first secret - key Ksl decrypts the video conference data Cm0ksl by the first secret - 1key Ksl: and uses decrypted video conference data M0.

Further, the second **secret - key** Ks2 is generated based on the first **secret - key** Ks1 with the video conference data management program P: In the case where the decrypted...

...video conference via the communication network 2, the data M is encrypted by the second **secret - key** Ks2 using the video conference data management program P:

The encrypted data Cmks2 is copied...receives the request for the second use of the data M finds out the first secret - key Ks1 according to the name or the number of the video conference data name or number to generate the second secret - key Ks2 based on the first secret - key Ks1: and supplies the generated second secret - key Ks2 to the non-participant of the video conference 123.

The non-participant of video conference 123 who receives the second secret - key Ks2 decrypts the encrypted data Cmks2 by the second secret - key Ks2 by using the television conference data management program P: and then, uses decrypted video...

...of the video conference 124, the video conference data M is encrypted by the second **secret - key** Ks2 using the video conference data management program P:

Incidentally, the third secret - key Ks3 may be generated on the basis of the second secret - key Ks2 with the video conference data management program P: and the data M can be encrypted with the video conference data management program P by this generated third secret - key Ks3:

...CLAIMS in said read-only semiconductor memory;

a second private-key, a permit key, a second **secret** - **key** , a copyright management program, and copyright information are stored in said electrically erasable programmable memory...

...in said read-only semiconductor memory;

a first public...

14/3,K/38 (Item 36 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
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00753646

## Data copyright management system

Urheberrechtsdatenverwaltungssystem

Systeme de gestion de donnees de droits d'auteurs

PATENT ASSIGNEE:

MITSUBISHI CORPORATION, (653510), 6-3, Marunouchi 2-chome, Chiyoda-ku Tokyo 100, (JP), (applicant designated states: DE;FR;GB)

Saito, Makoto, 2-12-6-104, Kaitori, Tama-shi, Tokyo, (JP) Momiki, Shunichi, 4-20-66, Kumegawa-cho, Higashimura-yama-shi, Tokyo, (JP)

#### LEGAL REPRESENTATIVE:

Heselberger, Johannes (156741), Patent- und Rechtsanwalte Bardehle . Pagenberg . Dost . Altenburg . Geissler Galileiplatz 1, 81679 Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 709760 A2 960501 (Basic) EP 709760 A3 990203

APPLICATION (CC, No, Date): EP 95116820 951025;

PRIORITY (CC, No, Date): JP 94264201 941027

DESIGNATED STATES: DE; FR; GB

INTERNATIONAL PATENT CLASS: G06F-001/00; G06F-012/14

ABSTRACT WORD COUNT: 521

LANGUAGE (Publication, Procedural, Application): English; English; FULLTEXT AVAILABILITY:

Available Text Language Update Word Count CLAIMS A (English) EPAB96 421
SPEC A (English) EPAB96 6978
Total word count - document A 7399
Total word count - document B 0
Total word count - documents A + B 7399

INTERNATIONAL PATENT CLASS: G06F-001/00 ...

#### ... G06F-012/14

- ...ABSTRACT is produced by editing a plurality of encrypted data obtained from the database, and is **encrypted** for **distribution** to another person, **crypt keys** for a **plurality** of data as raw material and an edition program which is an editing process with...
- ...comprises a database and a key control center, and uses a primary copyright label, a first use permit key including a first crypt key, a second use permit key, a third crypt key, and a copyright management program. The primary user uses primary copyrighted data encrypted by using the first crypt key and supplied, by decrypting it with the first use permit key obtained from the key...
- ...use permit key. At the completion of the editing, the primary user receives the third **crypt key** for **secondary copyright** as secondary exploitation right, **encrypts** the edited data with the third crypt key, and distributes it to a secondary user...
- ...new data is produced by editing a plurality of data obtained from the database, and **encrypted** for **distribution** to another person, **crypt keys** for a **plurality** of data as raw material and an edition program which is as an editing process...
- ...SPECIFICATION the key control center. On receiving the copyright management program Pc, the key control center transfers the first crypt key K1 and a second crypt key K2 corresponding to the

specific usage together with the copyright management program Pc to the ...copyright management program Pc which have been encrypted.

Typical means used for encrypting data include secret - key

cryptosystem and public-key cryptosystem.

The **secret** - **key** cryptosystem uses the same secret crypt key Ks for both encryption and decryption:

CmKs = E...

...to the second public-key Kb2 which are prepared by the user, and a first **secret - key** Ks1 and a second **secret - key** Ks2 prepared by the database. The database uses the first **secret - key** Ks1 to encrypt data M

Cmks1 = E (Ks1, M)

and further encrypts the firstsecret-keys Ks1 by the first public-key Kb1

Cks1kb1 = E (Kb1, Ks1)

and encrypts the second **secret - key** Ks2 by the second public-key Kb2 Cks2kb2 = E (Kb2, Ks2);

the database then transmits these encrypted data Cmksl and the first and the second **secret - keys** CKsl and Cks2kb2 to the user;

the user decrypts the first  $\ensuremath{\mathbf{secret}}$  -  $\ensuremath{\mathbf{key}}$  Ckslkbl using the first private-key

Kv1

Ks1 = D (Kv1, Cks1kb1),

and decrypts the encrypted data Cmks1 to use by decrypted first  $\ensuremath{\mathbf{secret}}$  -  $\ensuremath{\mathbf{key}}$  Ks1

M = D (Ks1, Cmks1),

and the encrypted second **secret - key** Cks2kb2 by the second private-key Kv2

Ks2 = D (Kv2, Cks2kb2);

and decrypted second **secret - key** Ks2 is used for data storage/copy/transfaer after data decryption.

SUMMARY OF THE INVENTION...user who requires encrypted secondary data requests the key control center for distributing the third crypt key. The key control center distributes the third crypt key to the secondary user.

The secondary user who receives the second crypt key decrypts encrypted secondary data using...

...to the second public-key Kb2 which are prepared by the user, and a first **secret** - **key** Ks1 and a second **secret** - **key** Ks2 prepared by the database. The database uses the first **secret** - **key** Ks1 to encrypt data

...use said primary copyrighted data requests distribution of said first use permit key to said **key** control center;

said **primary** user **decrypts** said primary **copyrighted** data for primary use by using said distributed first use permit key;

said primary user ...

...from said key control center, and edits said primary copyrighted data by using said distributed **second** use permit **key**, said **copyrighted** data during editing being **encrypted** and stored by using said second use permit key;

said primary user who completes editing...

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14/3,K/39
               (Item 37 from file: 348)
DIALOG(R) File 348: EUROPEAN PATENTS
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00747145
Data copyright management system
Datenurheberrechtsverwaltungssystem
Systeme de gestion des droits d'auteur de donnees
PATENT ASSIGNEE:
  MITSUBISHI CORPORATION, (653510), 6-3, Marunouchi 2-chome, Chiyoda-ku,
    Tokyo 100-0005, (JP), (Proprietor designated states: all)
INVENTOR:
  Saito, Makoto, 2-12-6-104, Kaitori, Tama-shi, Tokyo, (JP)
  Momiki, Shunichi, 4-20-66, Kumegawa-cho, Higashimurayama-shi, Tokyo, (JP)
LEGAL REPRESENTATIVE:
  Pfenning, Meinig & Partner GbR (100967), Mozartstrasse 17, 80336 Munchen,
PATENT (CC, No, Kind, Date): EP 704785 A2
                                             960403 (Basic)
                              EP 704785 A3
                                             990825
                              EP 704785 B1 031119
                              EP 95115068 950925;
APPLICATION (CC, No, Date):
PRIORITY (CC, No, Date): JP 94237673 940930; JP 94264199 941027; JP
    94269959 941102
DESIGNATED STATES: DE; FR; GB
INTERNATIONAL PATENT CLASS: G06F-001/00; G07F-007/10; G06F-012/14
ABSTRACT WORD COUNT: 292
NOTE:
  Figure number on first page: 1
LANGUAGE (Publication, Procedural, Application): English; English; English
FULLTEXT AVAILABILITY:
Available Text Language
                                     Word Count
                           Update
      CLAIMS A
               (English)
                          EPAB96
                                      3024
      CLAIMS B
               (English)
                           200347
                                       712
      CLAIMS B
                 (German)
                           200347
                                       616
      CLAIMS B
                 (French)
                           200347
                                       935
      SPEC A
                (English)
                          EPAB96
                                     23788
      SPEC B
                (English) 200347
                                     23328
Total word count - document A
                                     26817
Total word count - document B
                                     25591
Total word count - documents A + B
                                     52408
```

#### ... G06F-012/14

- ...SPECIFICATION transfers the third secret-key Ks3 serving as a decryption key and the fourth secret- key Ks4 serving as an encryption/decryption key to the tertiary user terminal 6 via the communication network 8.

  In the tertiary user terminal 6 receiving the third secret key Ks3 and the fourth secret key Ks4, the encrypted data Cmks3 is decrypted using the third secret key Ks3 by the copyright management program P
- ...this embodiment, the data M supplied to a primary user is encrypted by the first **secret key** Ks1 and the data M supplied to a secondary user is encrypted by the second **secret key** Ks2, and the data M supplied to a tertiary user is encrypted by the third **secret key** Ks3.

(Formula omitted) and is tertiarily utilized such as...

Therefore, if the tertiary user, instead of the primary user, falsely requests for primary utilization to the key control center 9, the first secret - key Ks1 for decryption and the second secret - key Ks2 for encryption / decryption are transferred to the tertiary user.

However, it is impossible to decrypt the encrypted data Cmks3 by the first secret - key Ks1 transferred as a decryption key.

Moreover, if the tertiary user, instead of the secondary user, falsely requests for secondary utilization to the key control center 9, the second secret - key Ks2 and the third secret - key Ks3 are transferred to the tertiary user as a decryption key and an encryption/decryption key respectively. However, it is impossible to decrypt the encrypted data CmKs3 by the second secret - key Ks2 transferred as a decryption key.

Therefore, it is impossible to falsely request for data utilization. As a result, not...

...of the first embodiment, a copyright management program and, if circumstances require, first and second **secret** - **keys** are encrypted and supplied.

Also in the case of this embodiment, similarly to the case...

- ...recording medium 3, or communication network 8. The data MO is encrypted by the first **secret key** Ks1: (Formula omitted)

  A primary user who desires primary utilization of the supplied encrypted data...
- ...receiving the request of the primary utilization of the encrypted original data CmOksl generates a **secret key** Ksul unique to the primary user using the primary user information Iul and transfers it to the copyright management center 10.

The copyright management center 10 receiving the **primary** user unique **secret** - **key** Ksul **encrypts** the **copyright** management program P by using the primary user unique **secret** - **key** Ksul (Formula omitted) and transfers an encrypted copyright management program Cpksul to the key control...

...generated is inherent in the primary user.

The key control center 9 transfers the first **secret - key** Ks1 for decryption and the second **secret - key** Ks2 for decryption/encryption to the primary user terminal 4 via the communication network 8...

...received from the copyright management center 10.

In the primary user terminal 4 receiving the encrypted copyright management program Cpksul, first secret - key Ksl, and second secret - key Ks2, database system software S previously distributed generates a primary user unique secret - key Ksul in accordance with

In the case where...

- ...video conference via the communication network 8, the data M is encrypted by the second **secret key** Ks2 using the video conference data management program P: (Formula omitted)

  The encrypted data Cmks2...
- ...receives the request for the second use of the data M finds out the first secret key Ksl according to the name or the number of the video conference data name or number to generate the second secret key Ks2 based on the first secret key Ks1: (Formula omitted) and supplies the generated second secret key Ks2 to the non-participant 46 of the video conference.

The non-participant 46 of video conference who receives the second secret - key Ks2 decrypts the encrypted data Cmks2 by the second secret - key Ks2 by using the television conference data management program P: (Formula omitted) and then, uses...

...47 of the video conference, the video conference data M is encrypted by the second **secret - key** Ks2 using the video conference data management program P: (Formula omitted)

Incidentally, the third secret - key Ks3 may be generated on the basis of the second secret - key Ks2 with the television conference data management program P: (Formula omitted) and the data M can be encrypted with the video conference data management program P by this generated third secret - key Ks3: (Formula omitted)

In embodiment 19 described above, the constitution of the data copyright management...

- ... Figure 4 for realizing the video conference data management system is applied and alter the **secret key** which has been used.

  However, as a constitution of a system for realizing the video...
- ...5 can be applied. Further, as cryptosystem used in such a case, the non-altered secret key, the public-key and the private-key, a combination of the secret key, the public-key and the private-key, and the complex keying which is explained from...
- ...only normal communication software such as a data communication protocol but also a program for decrypting a copyright management program by a first crypt key, it is necessary to be protected.

  In case of the present invention, a first crypt key K1, a second crypt key K2, and a copyright management program P are transferred to each user in order to use data M. Therefore...
- ...private-key in the public-key cryptosystem and the program containing algorithm for generating the **secret key** are kept when needed. For keeping them, it is the simplest means to use a...
- ...software and user data as a database.

The read-only memory 55 also stores a **first** crypt **key**, a **second crypt key**, and a **copyright** management program supplied from a key control center 9 or a copyright management center. Because...

14/3,K/40 (Item 38 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
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00733499

COMPUTER NETWORK CRYPTOGRAPHIC KEY DISTRIBUTION SYSTEM

KRYPTOGRAPHISCHES SCHLUSSELVERTEILUNGSSYSTEM IN EINEM RECHNERNETZ SYSTEME DE DISTRIBUTION DE CLE CRYPTOGRAPHIQUE POUR RESEAU INFORMATIQUE PATENT ASSIGNEE:

ENTRUST TECHNOLOGIES LTD., (2538870), 750 Heron Road, Tower E, Ottawa, Ontario K2G 5J9, (CA), (applicant designated states: BE;DE;FR;GB;IT;NL) INVENTOR:

FORD, Warwick, Stanley, 25 Assiniboine Drive, Nepean, Ontario K2E 5R8, (CA)

WIENER, Michael, James, 20 Hennepin Street, Nepean, Ontario K2J 3Z4, (CA) LEGAL REPRESENTATIVE:

Newstead, Michael John et al (34352), Page Hargrave Temple Gate House Temple Gate, Bristol BS1 6PL, (GB)

PATENT (CC, No, Kind, Date): EP 755598 A1 970129 (Basic)

EP 755598 B1 980916 WO 9528784 951026

APPLICATION (CC, No, Date): EP 95908852 950222; WO 95CA84 950222

PRIORITY (CC, No, Date): US 227871 940415 DESIGNATED STATES: BE; DE; FR; GB; IT; NL

INTERNATIONAL PATENT CLASS: H04L-009/08; G06F-012/14 NOTE:

No A-document published by EPO

LANGUAGE (Publication, Procedural, Application): English; English; FULLTEXT AVAILABILITY:

Available Text Language Update Word Count CLAIMS B (English) 9838 1026 CLAIMS B 9838 883 (German) CLAIMS B (French) 9838 1277 SPEC B (English) 9838 5283 Total word count - document A 0 Total word count - document B 8469 Total word count - documents A + B

## ...INTERNATIONAL PATENT CLASS: G06F-012/14

...SPECIFICATION each user is assigned a pair of matching secret and public keys. Each user's **secret key** is broken into shares. Each user then provides a plurality of trustees pieces of information which enables each trustee to verify its share of the **secret key**. Thus all the trustees must agree to reveal to a third party the **secret key** of a user. EP0343805, published November 29, 1989 describes techniques of

reproducing secure keys by...

...prekey. Key generation data are divided into more than one part and each part is **encrypted** in a **distributed** fashion, **first** by a **first key** prekey to obtain a symmetric key by which information is scrambled before transmission.

The present...

#### 14/3,K/41 (Item 39 from file: 348)

DIALOG(R) File 348: EUROPEAN PATENTS

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## 00262447

Manipulating rights-to-execute in connection with a software copy protection mechanism.

Behandlung von Ausfuhrungsrechten mit Bezug auf einen Softwarekopierschutzmechanismus.

Manipulation des droits d'execution a propos d'un mecanisme de protection de logiciel contre copie.

PATENT ASSIGNEE:

International Business Machines Corporation, (200120), Old Orchard Road, Armonk, N.Y. 10504, (US), (applicant designated states: DE;FR;GB;IT) INVENTOR:

Comerford, Liam David, Box 191 Rd. No. 1 10 Valley Road, Carmel, N.Y. 10512, (US)

White, Steve Richard, 7 Park Avenue Apt. 33, New York, N.Y. 10016, (US) LEGAL REPRESENTATIVE:

Burt, Roger James, Dr. et al (52152), IBM United Kingdom Limited Intellectual Property Department Hursley Park, Winchester Hampshire SO21 2JN, (GB)

PATENT (CC, No, Kind, Date): EP 268139 A2 880525 (Basic)

EP 268139 A3 910410

APPLICATION (CC, No, Date): EP 87116179 871103;

PRIORITY (CC, No, Date): US 927299 861105

DESIGNATED STATES: DE; FR; GB; IT

INTERNATIONAL PATENT CLASS: G06F-012/14; G06F-001/00

ABSTRACT WORD COUNT: 137

LANGUAGE (Publication, Procedural, Application): English; English; English FULLTEXT AVAILABILITY:

Available Text Language Update Word Count CLAIMS A (English) EPABF1 2301 SPEC A (English) EPABF1 17139

Total word count - document A 19440

Total word count - document B 0

Total word count - documents A + B 19440

INTERNATIONAL PATENT CLASS: G06F-012/14 ...

#### ... G06F-001/00

...SPECIFICATION this sensitive information from unauthorized persons. The same data is encrypted under a hardware manufacturer secret key called a Common Supervisor Key (CSK) to generate E( sub(CSK))(token data). It is...B. As Fig. 1 shows the application file B is encrypted under the software decryption key AK. A second file on the distribution disk 16 is the software decryption key, encrypted under the key CSK. Finally, the last file on the distribution disk is... computing system to provide for the encryption of token data and software under his own secret key (AK) in accordance with the software protection mechanism described in copending application (Y0985-091), another...

## 14/3,K/42 (Item 40 from file: 348)

DIALOG(R) File 348: EUROPEAN PATENTS

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#### 00171794

Method of software protection.

Softwaresicherungsverfahren.

Procede de protection de logiciel.

PATENT ASSIGNEE:

International Business Machines Corporation, (200120), Old Orchard Road, Armonk, N.Y. 10504, (US), (applicant designated states: DE;FR;GB;IT) INVENTOR:

Matyas, Stephen Michael, R.D. 5 Box 19F, Kingston New York 12401, (US) Oseas, Jonathan, Box 147, Hurley New York 12401, (US) LEGAL REPRESENTATIVE:

Bailey, Geoffrey Alan (27921), IBM United Kingdom Limited Intellectual

Property Department Hursley Park, Winchester Hampshire SO21 2JN, (GB) PATENT (CC, No, Kind, Date): EP 191162 A2 860820 (Basic)

EP 191162 A3 890308 EP 191162 B1 930203

APPLICATION (CC, No, Date): EP 85115147 851129;

PRIORITY (CC, No, Date): US 682854 841218

DESIGNATED STATES: DE; FR; GB; IT

INTERNATIONAL PATENT CLASS: G06F-012/14; G07F-007/00; G07F-007/10

ABSTRACT WORD COUNT: 233

LANGUAGE (Publication, Procedural, Application): English; English; English; FULLTEXT AVAILABILITY:

Available Text Language Update Word Count
CLAIMS B (English) EPABF1 1501
SPEC B (English) EPABF1 9028

Total word count - document A 0

Total word count - document B 10529

Total word count - documents A + B 10529

#### INTERNATIONAL PATENT CLASS: G06F-012/14 ...

- ...SPECIFICATION and a secret computer key. However, the public computer key is first decrypted under the **secret key** of the computer manufacturer and stored in the computer in that form. When the program...
- ...pair; i.e, a secret computer key and a public computer key decrypted under the secret key of the designated public registry. The advantage to this approach is that the file key...press-on label visible to the user. This identification or number is associated with the secret of the crypto facility of the computer. The program number and the diskette serial number...simply encrypts the provided program number and diskette serial number, concatenated together, with a special secret key , SK, used only to generate multi-digit authorisation numbers. The n-bit portion of the...encryption key, KP, from table 27. Alternatively, the key KP can be generated from a secret key belonging to the key distribution centre in a similar manner as the eKT(TR) keys are generated using secret key KT as shown in Figure 3. This encryption key is then used to encrypt the...implementation containing the Data Encryption Standard (DES) algorithm and storage for a small number of keys . It can be accessed logically only through inviolate interfaces secure against intrusion, circumvention and deception... ...personal computer and smart card with no loss of security to protected software or the secret keys or parameters that support the system. To interface to the system, it is only necessary...
- ...this embodiment, the main advantage of the PK algorithm is achieved, namely that a universal **secret key** need not be stored on the smart card. The card manufacturer personalises the card with...the computer with a unique key pair, the computer public key, PKt, and the computer **secret key**, SKt. The computer manufacturer has the public key of the computer recorded in a public...
- ...this means that PKt is stored in the form dSu(PKt), where SKu is the **secret key** of the registry and PKt is the public key of the computer. This value dSu...
- ...several redundancy bits (0 bits in this case) concatenated with it is decrypted under the **secret key** SKu. SKu is the **secret key** belonging to the computer manufacturer. The redundancy bits are added to the message so that...

- ...101 of the computer 10 where it is decrypted in decryption block 105 using the **secret key**, SKt, of the computer and then exclusive ORed with the random number T. The file...
- ...properly recorded in the registry, i.e. for which PKt has been deciphered under the **secret key** of the registry.

The advantages of the mixed public key and DES embodiment are several  $\dots$ 

...with no loss in security to the protected software of a given vendor or the **secret keys** or parameters that support the system. To interface to the system, it is only necessary...constant of sufficient bits which may have a value of zero all decrypted under the **secret key**, SKu, of the distribution centre.

Also with the smart card, a third operation shown in...constant of sufficient bits which may have a value of zero all decrypted under the **secret key**, SKu, of the distribution centre. Used in conjunction with the second operation, the seventh operation...

...CLAIMS identifier and then encrypting the program number and storage medium number concatenated together with said first key to produce a second key at the key distribution centre, and encrypting the secret file key of the program with said second key to produce said password...further comprising the steps providing the computer with a public key, PKt, decrypted under the secret key of a public registry, and also providing said cryptographic facility with a corresponding secret key, SKt, providing said smart card with a public key, PKu, encrypting in the smart card the computer public key decrypted under the secret key of the public registry with the card's public key PKu to produce said key...

## 14/3,K/43 (Item 1 from file: 349)

DIALOG(R) File 349: PCT FULLTEXT

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01251974 \*\*Image available\*\*

METHODS AND APPARATUSES FOR DISTRIBUTING SYSTEM SECRET PARAMETER GROUP AND ENCRYPTED INTERMEDIATE KEY GROUP FOR GENERATING CONTENT ENCRYPTION AND DECRYPTION DEYS

PROCEDES ET APPAREILS PERMETTANT DE DISTRIBUER UN GROUPE DE PARAMETRES SYSTEME SECRETS ET UN GROUPE DE CLES INTERMEDIAIRES CRYPTEES AFIN DE GENERER DES CLES DE CRYPTAGE ET DECRYPTAGE DE CONTENU

Patent Applicant/Assignee:

MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, 1006, Oaza Kadoma, Kadoma-shi, Osaka, 5718501, JP, JP (Residence), JP (Nationality), (For all designated states except: US)

Patent Applicant/Inventor:

NONAKA Masao, -- (Residence), -- (Nationality), (Designated only for: US) FUTA Yuichi, -- (Residence), -- (Nationality), (Designated only for: US) OHMORI Motoji, -- (Residence), -- (Nationality), (Designated only for: US)

YAMADA Shigeru, -- (Residence), -- (Nationality), (Designated only for: US)

INOUE Tetsuya, -- (Residence), -- (Nationality), (Designated only for:
 US)

KUMAZAKI Yoji, -- (Residence), -- (Nationality), (Designated only for:

Legal Representative:

NII Hiromori (agent), c/o NII Patent Firm, 3rd Floor, Shin-Osaka Suehiro Center Bldg., 11-26, Nishinakajima 3-chome, Yodogawa-ku, Osaka-shi, Osaka 532-0011, JP,

Patent and Priority Information (Country, Number, Date):

Patent:

WO 200559727 A1 20050630 (WO 0559727)

Application:

WO 2004JP19141 20041215 (PCT/WO JP04019141)

Priority Application: JP 2003419766 20031217

Designated States:

(All protection types applied unless otherwise stated - for applications 2004+)

AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW (EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LT LU MC NL PL PT RO SE SI SK TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) BW GH GM KE LS MW MZ NA SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English Filing Language: English Fulltext Word Count: 47576

Main International Patent Class: G06F-001/00

Fulltext Availability: Detailed Description Claims

## Detailed Description

... individual key given to each of the content output apparatuses so as to generate a plurality of encrypted intermediate key groups; and distributing, to the content output -13

apparatuses, an encrypted intermediate key group set that is made...when it receives the encrypted intermediate key group set ENCMKGS from the intermediate key group encryption unit 115, distributes the received encrypted intermediate key group set ENCMKGS to the plurality of output apparatuses 13a to 13n via the communication path 10, (7) Input Unit 117...

...group encryption unit 115 outputs the generated encrypted intermediate key group set ENCMKGS to the encrypted intermediate key group set distribution unit 116 (S1112).

The encrypted intermediate key group set distribution unit 116 receives the encrypted intermediate key group set ENCMKGS, distributes the received encrypted intermediate key group set ENCMKGS to the plurality of output apparatuses 13a to 13n, and terminates the operation (S1113).

<<pre><<Operation at Revoking Output...Group Storage Unit 127
The system secret parameter group storage unit 127 holds
the system secret key group SPG as shown in FIG. 12. The system
secret parameter group receiving unit 126...nent has an effect that
the key issuing center 21 can reduce the frequency of distributing
the encrypted intermediate key group set EMCMKGS to the plurality
of output apparatuses 22a to 22n by embedding sets of intermediate
key groups in the...unit 616 (S6112).</pre>

The encrypted intermediate key group set d.istribution unit 616 receives the **encrypted** intermediate key group set ENCMKGS, **distributes** the received **encrypted** intermediate **key** group set ENCMKGS to the **plurality** of output apparatuses 63 a to 63n and terminates the process (S6113).

They are the...CK2 based on the content key CK, further encrypts the content  $\ \ \,$ 

CNT based on the **second** content **key** CK2 and **distributes** the **encrypted** content ENCCNT and the encrypted second content key CK2 to the output apparatuses 63a to...

...content key

CK3. encrypt the content CNT based on the third content key CK3, and distribute the encrypted content ENCCNT, second content key CK2 and third content key CK3 to the output apparatuses 63a to 63n.

It may...

#### Claim

... individual key given to each of the content output apparatuses so as to generate a plurality of encrypted intermediate key groups; and

distributing , to the content output apparatuses, an encrypted intermediate key group set that is made up...

...individual key given to each of the content output apparatuses so as to generate a **plurality** of **encrypted** intermediate **key** groups; and

distributing , to the content output apparatuses,, an encrypted intermediate key group set that is made up...

## 14/3,K/44 (Item 2 from file: 349)

DIALOG(R) File 349: PCT FULLTEXT

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01169937 \*\*Image available\*\*

METHOD AND SYSTEM FOR MANAGING DIGITAL RIGHTS

PROCEDE ET SYSTEME DE GESTION DES DROITS NUMERIQUES

Patent Applicant/Assignee:

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Patent Applicant/Inventor:

FONTIJN Wilhelmus F J, c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven, NL, NL (Residence), NL (Nationality), (Designated only for: US) Legal Representative:

GROENENDAAL Antonius W M (agent), Prof. Holstlaan 6, NL-5656 AA Eindhoven , NL.

Patent and Priority Information (Country, Number, Date):

Patent: WO 200492931 A2-A3 20041028 (WO 0492931)

Application: WO 2004IB50429 20040414 (PCT/WO IB04050429)

Priority Application: EP 2003101065 20030417

Designated States:

(All protection types applied unless otherwise stated - for applications 2004+)

AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO

RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW (EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PL PT RO SE SI SK TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) BW GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English Fulltext Word Count: 5056

Main International Patent Class: G06F-001/00

Fulltext Availability: Detailed Description

Detailed Description

... content item or a part of the content item. A digital right may comprise a plurality of content decryption keys. Alternatively, a digital right may comprise a small software application which is able to generate content decryption keys. Advantageously...

...integrated circuit of the method as well as re-encrypt the digital right using a **secret key** that is only known to authorized integrated circuits. This provides a high level of security...

#### 14/3,K/45 (Item 3 from file: 349)

DIALOG(R) File 349: PCT FULLTEXT

(c) 2005 WIPO/Univentio. All rts. reserv.

01161905 \*\*Image available\*\*

## REMOTE ACCESS AUTHORIZATION OF LOCAL CONTENT AUTORISATION D'ACCES A DISTANCE A UN CONTENU LOCAL

Patent Applicant/Assignee:

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Legal Representative:

YOUNG Barry N (agent), Gray Cary Ware & Freidenrich, 2000 University Avenue, East Palo Alto, CA 94303, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200484008 A2-A3 20040930 (WO 0484008)
Application: WO 2004US6698 20040303 (PCT/WO US04006698)

Priority Application: US 2003392591 20030318

Designated States:

(All protection types applied unless otherwise stated - for applications 2004+)

AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW (EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PL PT RO SE SI SK TR

- (OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
- (AP) BW GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW
- (EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English Fulltext Word Count: 10802

International Patent Class: G06F-017/60

Sylvia Keys

22-Jul-05 02:14 PM

Fulltext Availability: Detailed Description Claims

#### Detailed Description

- ... process creates the encrypted content C'i by using the encryption algorithm Ei and the **secret key** Ki to process the plaintext content Ci in a well known manner. There is associated...
- ...algorithm a decryption algorithm, Di, such that when the encrypted content C'i and the **secret key** Ki are processed using the decryption algorithm, the plain text content Ci is returned, i...

#### Claim

... remote server said information provided to the user using a first encrypting process and a **first encryption key**; and **downloading** to a browser at the user a page containing said encrypted information.

5 The method...

## 14/3,K/46 (Item 4 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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01155871

## SYSTEM FOR ON-LINE AND OFF-LINE DECRYPTION SYSTEME DE DECRYPTAGE EN LIGNE ET HORS LIGNE

Patent Applicant/Assignee:

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Inventor(s):

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BRUNS Logan O'Sullivan, 127 Quarry Drive, Napa, CA 94559, US,

Legal Representative:

ROBERTS Raymond E (agent), Intellectual Property Law Offices, 1901 South Bascom Avenue, Suite 660, Campbell, CA 95008, US,

Patent and Priority Information (Country, Number, Date):

Patent:

WO 200477290 A1 20040910 (WO 0477290)

Application: WO 2003US19953 20030625 (PCT/WO US03019953) Priority Application: US 2003449068 20030220; US 2003250004 20030527

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PG PH PL PT RO RU SC SD

SE SG SK SL TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW

(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PT RO SE SI SK TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English Fulltext Word Count: 7155

Main International Patent Class: G06F-009/00

Fulltext Availability:
Detailed Description

```
Detailed Description
```

... key server delivers the message key to the recipient, which uses the message key to **decrypt** the email.

**Distributing** symmetric **keys** via a **key** server has **many** positive attributes. For example, a sender (or any authorized party) can determine when a recipient...

...key that encrypts the message key and an envelop decryption key is the private or **secret key** that decrypts the message key.

Key exchange algorithm means the algorithm a sender and the...

```
14/3,K/47
                (Item 5 from file: 349)
DIALOG(R) File 349: PCT FULLTEXT
(c) 2005 WIPO/Univentio. All rts. reserv.
01012869
             **Image available**
DEVICE AND METHOD WITH REDUCED INFORMATION LEAKAGE
DISPOSITIF ET PROCEDE POUR LIMITER LA FUITE D'INFORMATIONS
Patent Applicant/Assignee:
  INTERNATIONAL BUSINESS MACHINES CORPORATION, New Orchard Road, Armonk, NJ
    10504, US, US (Residence), US (Nationality), (For all designated states
    except: US)
Patent Applicant/Inventor:
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  (Residence), DE (Nationality), (Designated only for: US)
BUHLER Peter, Muehlestrasse 39, CH-8803 Rueschlikon, CH, CH (Residence),
    DE (Nationality), (Designated only for: US)
  EIRICH Thomas, Robert-Walser-Strasse 50, CH-8820 Waedenswil, CH, CH
  (Residence), DE (Nationality), (Designated only for: US)
HOERING Frank, Culmannstrasse 39, CH-8006 Zurich, CH, CH (Residence), DE
    (Nationality), (Designated only for: US)
  OESTREICHER Marcus, Kalkbreitestrasse 120, CH-8003 Zurich, CH, CH
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  WEIGOLD Thomas D, Buttenaustrasse 20, CH-8134 Adliswil, CH, CH
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Legal Representative:
  TOLETI Martin (agent), International Business Machines Corporation,
    Saeumerstrasse 4 / Postfach, CH-8803 Rueschlikon, CH,
Patent and Priority Information (Country, Number, Date):
  Patent:
                         WO 200342799 A2-A3 20030522 (WO 0342799)
  Application:
                         WO 2002IB4620 20021105
                                                  (PCT/WO IB0204620)
  Priority Application: EP 2001811093 20011114
Designated States:
(Protection type is "patent" unless otherwise stated - for applications
prior to 2004)
  AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ
  EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR
  LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI
  SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW
  (EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LU MC NL PT SE SK TR
  (OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
  (AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW
  (EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
```

Fulltext Word Count: 9400

Main International Patent Class: G06F-001/00 Fulltext Availability:
Detailed Description

### Detailed Description

... of processes such as data encryption and authentication. In a typical symmetric cryptographic process, a **secret key** is known ...In systems using asymmetric or public-key cryptography, one party typically performs operations using a **secret key**, e.g., the so-called private key, while the other performs complementary operations using only...as described for example by E. Biham and A. Shamir in "Differential Fault Analysis of **Secret Key** Cryptosystems," Advances in Cryptology--CRYPTO '97, ...uses the same key to transform ciphertext blocks into their corresponding plaintexts.

To obtain a secret key from ...maintain and manipulate secret parameters in open environments without revealing their values. Compromise of a secret key used to compute a digital signature could, for example, allow an attacker to forge the...being manipulated within it. Such signals can be measured and analyzed by attackers to recover keys . State transitions are also a major ...amount of power consumed when the system is in transition. Attackers can non-invasively extract **secret** keys using external measurement and analysis of a device's power consumption, electromagnetic radiation, or processor... fluctuations, DPA attacks use statistical analysis and error correction techniques to extract information correlated to secret keys . Hence, DPA is a much more powerful attack than SPA, and ...lookup at a time, it is only necessary to guess the six bits of the secret key that are relevant to the S-box being observed and corresponding to the power consumption possible sequences of values for a given 6-bit portion of the 56-bit secret key. For each quess of the values of these six bits, one divides the samples into...the six key bits was incorrect. This process of guessing at the value of the secret key , dividing the power signature samples into those which will yield a 1-output and those ...remaining key space of 21 = 256 possible keys to find the balance of the correct secret key . It becomes apparent how little information the attacker needs to employ such an attack. The...indexed key update technique are disclosed. In one embodiment, a cryptographic client device maintains a secret key value as part of its state. The client can update its secret value at any...power consumption, and the actual EEPROM contents are derived. If such EEPROM content is a secret key quarding an electronic transaction for example, the security of the whole electronic transaction system is...20 and that suffers from the information - 19 leakage of the EEPROM 20, namely the second cryptographic key 21, is transferred in encrypted form. Since the leakage of the ROM 40 and the RAM 30 is lower than...prone to the attack stated above. The encryption step is performed under use of another key, the cryptographic master key 45, that may either be unique to the chip, or unique...

14/3,K/48 (Item 6 from file: 349)

DIALOG(R) File 349: PCT FULLTEXT

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00916583 \*\*Image available\*\*
AUTHENTICATION IN A CRYPTO-SYSTEM

AUTHENTIFICATION DANS UN SYSTEME DE CHIFFREMENT

Patent Applicant/Assignee:

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Inventor(s):

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STADNICKI Alfred A (agent), 1146 Nineteenth Street, N.W., 5th floor, Washington, DC 20036, US,

Patent and Priority Information (Country, Number, Date):

Patent:

WO 200250677 A1 20020627 (WO 0250677)

Application: WO 2001US48097 20011218 (PCT/WO US0148097)

Priority Application: US 2000739118 20001219

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

JP

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

Publication Language: English

Filing Language: English Fulltext Word Count: 16737

Main International Patent Class: G06F-001/24

Fulltext Availability: Detailed Description

#### Detailed Description

... symmetric key cryptography, the two parties who want to communicate in private share a common secret key, say K. the sender encrypts messages with K, to generate a cipher, i.e. C...for any message M of his choice since the computation is based on a shared secret key. With digital signatures this is not possible since only the sender has knowledge of the...The network station receiving the first

authentication request is the network station which generates and distributes the shared symmetric crypto - key . Thus, both the second

 ${\tt D}$  and third network stations can perform identical operations. In one beneficial aspect of the...preferably are associated with a sponsor. A sponsor

is an entity controlling generation, assignment, and **distribution** of the asymmetric **crypto** - **keys**. Furthermore, either the **first** or the second network station can be the network station having generated the asymmetric...user's portion of the private key. Cl can than be used as a shared **secret key** between the user and the sponsor stations. Thus, by demonstrating knowledge of Cl, the user...

## 14/3,K/49 (Item 7 from file: 349)

DIALOG(R) File 349: PCT FULLTEXT

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00913727 \*\*Image available\*\*

ELECTRONIC VOTING SYSTEM

SYSTEME DE VOTE ELECTRONIQUE

Patent Applicant/Assignee:

THE UNIVERSITY OF NORTH CAROLINA AT GREENSBORO, P.O. Box 26170, Greensboro, NC 27402-6170, US, US (Residence), US (Nationality) Inventor(s):

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WANG Jie, Dept. of Mathematical Sciences/338 Bryan Building, Greensboro, NC 27402, US,

Patent Applicant/Inventor:

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WANG Jie, Dept. of Mathematical Sciences/338 Bryan Building, Greensboro, NC 27402, US, US (Residence), US (Nationality)

Legal Representative:

ANTOLIN Stanislav (agent), Maccord Mason PLLC, P.O. Box 2974, Greensboro, NC 27402, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200246883 A2-A3 20020613 (WO 0246883)
Application: WO 2001US48357 20011205 (PCT/WO US0148357)

Priority Application: US 2000731035 20001206

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PH PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English Filing Language: English

Fulltext Word Count: 25162

Main International Patent Class: G06F-017/60

Fulltext Availability:

Detailed Description

Claims

Detailed Description

... data in the distributor database. A preferred distributor database encryptor includes an on the fly **encryptor**. The

distributor database encryptor preferably uses public keys generated by a plurality of facilities of the election system to encrypt the distributor database.

Decryption of data within...the only way to completely decode a piece of data would be to acquire the **secret keys** of all severs, which, by our assumption, is impossible. Because the database is encrypted piece...

...a randomly selected third facility C. Facility C then decrypts the data with its own **secret key**, verifies that the size and the structure of the data it received have not been...We first prove the following lemma.

Lemma 1. If no facility knows all other facilities' **secret keys**, then any collaboration among facilities can be detected by a non-collaborating facility.

Proof. We...

#### Claim

... the only way to completely decode a piece of data would be to acquire the **secret keys** of all severs, which, by our assumption, is impossible. Because the database is encrypted piece...

...a randomly selected third facility C. Facility C then decrypts the data

Sylvia Keys

22-Jul-05 02:14 PM

```
with its own secret key , verifies that the size and 5- the structure of the data it received have not...on the fly encryptor. 5 1
```

- . The election system according to Claim 39 wherein said **distributor** database **encryptor** uses public **keys** generated by a **plurality** of facilities of said election system to encrypt said matcher database.
- 42 The election system...the fly encryptor. 1 5 146. The election system according to Claim 144 wherein said **distributor** database **encryptor** uses public **keys** generated by a **plurality** of facilities of said election system to encrypt said matcher database. 147. The election system...

# 14/3,K/50 (Item 8 from file: 349) DIALOG(R)File 349:PCT FULLTEXT

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00876811 \*\*Image available\*\*

SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR DEVICE, OPERATING SYSTEM, AND NETWORK TRANSPORT NEUTRAL SECURE INTERACTIVE MULTI-MEDIA MESSAGING SYSTEME, PROCEDE ET PRODUIT PROGRAMME D'ORDINATEUR POUR APPAREIL, SYSTEME D'EXPLOITATION ET MESSAGERIE MULTIMEDIA INTERACTIVE RESEAU, NEUTRE ET SECURISEE

Patent Applicant/Assignee:

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Inventor(s):

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ANANIAN R Michael (et al) (agent), Flehr Hohbach Test Albritton & Herbert LLP, 4 Embarcadero Center, Suite 3400, San Francisco, CA 94111-4187, US

Patent and Priority Information (Country, Number, Date):

Patent: WO 200210962 A1 20020207 (WO 0210962)
Application: WO 2001US23713 20010727 (PCT/WO US0123713)
Priority Application: US 2000627357 20000728; US 2000627358 20000728; US 2000627645 20000728; US 2000628205 20000728; US 2000706606 20001104; US 2000706608 20001104; US 2000706618 20001104; US 2000706818 200001104; U

2000706609 20001104; US 2000706610 20001104; US 2000706611 20001104; US 2000706612 20001104; US 2000706613 20001104; US 2000706614 20001104; US 2000706615 20001104; US 2000706616 20001104; US 2000706617 20001104; US 2000706621 20001104; US 2000706661 20001104; US 2000706644 20001104; US 2001271455 20010225; US 2001912715 20010725; US 2001912936 20010725; US 2001912905 20010725; US 2001912773 20010725; US 2001912885 20010725; US 2001912860 20010725; US 2001912941 20010725; US 2001912901 20010725; US 2001912772 20010725

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM Publication Language: English Filing Language: English Fulltext Word Count: 169299

Main International Patent Class: G06F-017/00 Fulltext Availability:
Detailed Description Claims

Detailed Description ... for sending in an email message.

This algorithm performs three block encryption algorithms using a **secret key** , called Kmt, chosen by the server during installation. If this key is compromised, then the...

...XTEA, which has a 128-bit key.

If the server needs to change the Kmt secret key, it will not be able to recognize MTs created by the old key. However, if...can be expressed as a function as show immediately below. In one embodiment, the Data-Encryption - Key is the first 128-bits of the 160-bit OAEP-Seed.

SealSignedInsideEnveloped (Recipient-Public-Key, Sender-Private-Key... address match using an algorithm described in [Mtag] that is based on a server specific secret key. This means that the attackers cannot forge new download URLs, they can only replay ones...email address of the client. The first part of the response will be the private keys. The second part of the response will be a certificate chain that starts with the user 1...

- ...Public-Key-Length n bytes, MSB first = length of following field in bytes.
  - \* Enveloping-Public- Key n bytes, MSB first = Modulus.

The format of the Certificate Response is shown below. In another preferred embodiment, the...transformation of the fields of a Resource Tag can be based on one or more **secret keys** known to the Resource Owner using series of block encryption steps on portions of the...

...allows the transformation to be reverse by an entity that knows the one or more secret . keys .

For a 9 to 16 byte Resource Tag, the cryptographic transformation can be performed by...

...that the User (client) communicating with the Resource Owner (server) has current access to a **secret key** (e.g., triple-DES or XTEA or RC5 or AES key) associated with a key...the User Credential Information where the key identifier allows the server to lookup the same **secret key** known to the client, and other fields in the User Credential Information are verified@ using a cryptographic checksurn based on that same **secret key**.

The Resource Owner determines whether to grant access to the Resource (e.g., e-mail...

...embodiment (16), wherein the fields of a Resource Tag are based on one or more secret keys known to the Resource Owner. (19) The method in

- 46 The method in claim 6, wherein the first information comprises the Resource Tag, and...wherein the cryptographic primitives for Encrypted-Data providing privacy and data integrity based on a secret key and a cipher algorithm.
- 91 The method in claim 90, wherein the cipher algorithm being...
- ...claim 89, wherein the cryptographic primitives for Signed-inside-Enveloped-Data providing transport of a **secret key** from Sender to Recipient using a public key of the recipient.
- 93 The method in claim 92, wherein the **secret key** being selected from the set comprising a message key and a session key. The method...

  ...wherein the cryptographic primitives for Encrypted-Data providing privacy and data integrity based on a **secret key** and a cipher algorithm; and the cryptographic primitives for Signed-Inside-Enveloped-Data providing transport of a **secret key** from Sender to Recipient using a public key of the recipient.
  - 96 The method in...
- ...wherein the cryptographic primitives for Encrypted-Data providing privacy and data integrity based on a **secret key** and a cipher algorithm.
  - 99 The method in claim 90, wherein the cipher comprise a...the next block of Encrypted Data. 1 00. The method in claim 99, wherein the **secret key** to the cipher is one input to this primitive. 101. The method in claim 99...
- ...cipher without an Initialization Vector, the bytes of the key are not reused, and the **secret key** to the cipher is one input to this primitive. 103. The method in claim 102...
- ...tamper detection, is provided by a cryptographic message authentication code that is based on a **secret key** . The method in claim 104, wherein the secret is equal to or derived from the...
- ...122. The method in claim 89, wherein new secret session keys are derived from old secret keys that where previously agreed to by the Sender and Recipient thereby avoiding all or a...wherein the Secure Response message protocol is implemented using the Encrypted-Data primitive with a secret key know to the Recipient that is included inside the message that was received securely. 138...
- ...wherein the Secure Response message protocol is implemented using the Encrypted-Data primitive with a secret key know to the Recipient that is included inside the message that was received securely and...claim 156, wherein the cryptographic primitives for Signed-Inside-Enveloped-Data provide transport of a secret key from Sender to Recipient using a public key of the recipient. 158. The method in...

14/3,K/51 (Item 9 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00841904 \*\*Image available\*\*
DIGITAL RIGHTS MANAGEMENT WITHIN AN EMBEDDED STORAGE DEVICE

## GESTION NUMERIQUE DE DROITS DANS UN DISPOSITIF DE MEMOIRE INTEGRE

Patent Applicant/Assignee:

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Inventor(s):

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STEUBER David E (et al) (agent), Skjerven Morrill MacPherson LLP, 25 Metro Drive, Suite 700, San Jose, CA 95110, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200175562 A2-A3 20011011 (WO 0175562)
Application: WO 2001US10405 20010329 (PCT/WO US0110405)

Priority Application: US 2000542510 20000403

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English Fulltext Word Count: 9881

Main International Patent Class: G06F-001/00

Fulltext Availability: Detailed Description

Detailed Description

... code or key to access multiple media, and presents a potential for interception of enabling keys or codes.

Many previous distribution systems, especially those relating to electronically or optically stored information, have been designed to prevent...the storage medium by the data storage engine. The keys may be encrypted using a **secret** key stored within the data storage engine prior to writing them to the media. In stage...

#### 14/3,K/52 (Item 10 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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00757055 \*\*Image available\*\*

### PUBLIC CRYPTOGRAPHIC CONTROL UNIT AND SYSTEM THEREFOR

UNITE DE CONTROLE CRYPTOGRAPHIQUE PUBLIQUE ET SYSTEME DE MISE EN OEUVRE Patent Applicant/Assignee:

WAVE SYSTEMS CORP, Suite B200, 480 Pleasant Street, Lee, MA 01238, US, US (Residence), US (Nationality)

Inventor(s):

SPRAGUE Steven K, 147 Reservoir Road, Lenox, MA 12040, US KAZMEIRCZAK Gregory J, 36 Labaw Way, Belle Mead, NJ 08502, US Legal Representative:

JACOBSON Allan J, Intellectual Property Law, 13310 Summit Square Center, Route 413 & Doublewoods Road, Langhorne, PA 19047, US Patent and Priority Information (Country, Number, Date):

Sylvia Keys

22-Jul-05 02:14 PM

Patent: WO 200070429 A1 20001123 (WO 0070429)

Application: WO 2000US13239 20000515 (PCT/WO US0013239)

Priority Application: US 99313295 19990517

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AU CA CN JP KR NO

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

Publication Language: English Filing Language: English Fulltext Word Count: 12612

Main International Patent Class: G06F-001/00

Fulltext Availability: Detailed Description Claims

Detailed Description
... 8 parity
bits.

As used herein, performing a cryptographic operation on a variable under a **secret key** means to encrypt (or decrypt) that variable (usually a key) using the **secret key** to generate another key. Encryption may be performed under a

single key, or under multiple...on a first fixed string A 940, a second fixed

string B 956 and a **secret key** , called the client key 942. The client key 942 is stored in a programmable memory...

#### Claim

... generating a first security applet and encrypting said first security applet in process using a **first** cryptographic **key** to form a **first encrypted** security applet and **distributing** said first **encrypted** security applet to said user computer, a cryptographic key distribution method at said cryptographic operations process using a **first** cryptographic **key** to form a **first encrypted** security applet and **distributing** said first **encrypted** security applet to said user computer, a cryptographic key distribution apparatus at said

## 14/3,K/53 (Item 11 from file: 349)

DIALOG(R) File 349: PCT FULLTEXT

cryptographic operations...

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00557577 \*\*Image available\*\*
DISTRIBUTING ACCESS TO A DATA ITEM
REPARTITION DE L'ACCES A UN ARTICLE DE DONNEES
Patent Applicant/Assignee:
GLASSBROOK INC,
Inventor(s):

KAWELL Leonard M Jr, DIAZ Thomas R, HEINEN Mary Ellen, HEINEN Rodger J Jr,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200020950 A1 20000413 (WO 0020950)
Application: WO 99US23474 19991007 (PCT/WO US9923474)

Priority Application: US 98167888 19981007

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW GH GM KE LS MW SD SL SZ TZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

Publication Language: English Fulltext Word Count: 8069

Main International Patent Class: G06F-001/00 Fulltext Availability:
Detailed Description Claims

#### Detailed Description

... to the data item. At least one of the transfers of permission may include the transfer of a first encryption key, and the method may include using a second encryption key to encrypt the first encryption key prior to transfer. The first encryption key may include a secret

key and the second encryption key may include one of the keys in a
public/private...each of the sender computers and recipient
computers may rely on encryption devices known as secret keys and
public/private key sets, and may include a highly secure mechanism, which
may handle...

- ...more of the keys or key sets, or encrypted or unencrypted data, or both.

  A **secret key** (also known as a symmetric key) is a s tri ng of data (e.g...
- ...in a way that allows the other data to be de-encrypted using the same secret key. A public/private key set includes two strings of data (e.g., 1024 bits each...
- ... Security Dynamics, Inc., 1982.

A conventional general-purpose computer can be used to generate the **secret key** and the public/private key set, which can be stored in conventional computer files, as...

- ...implement a public/private key encryptor 56, a public/private key cle-encryptor 58, a **secret key** encryptor 60, and a **secret key** de-encryptor 62. A permission data bank 64, a public key 66, a private key...
- ...known as Java.

In a specific embodiment, only the publisher computer is provided with a **secret key** encryptor (e.g., because the other computers are not originators of encrypted data items) and only the end-user computer is provided with the **secret key** de-encryptor (e.g., because the other computers do not display or otherwise make significant...

...Figs. 8-14 illustrate a detailed example 72 of the usage permission transfer procedure. A **secret key** 74 (e.g., a randomly-generated 40-bit number) is used to encrypt book data 76 to produce **secret key** encrypted book data 78 (step 2010), which is stored at a sender computer (step 2020). (In a specific embodiment, the **secret key** is also

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14/3,K/54
               (Item 12 from file: 349)
DIALOG(R) File 349: PCT FULLTEXT
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            **Image available**
SYSTEMS AND METHODS FOR SECURE TRANSACTION MANAGEMENT AND ELECTRONIC RIGHTS
    PROTECTION
SYSTEMES ET PROCEDES DE GESTION DE TRANSACTIONS SECURISEES ET DE PROTECTION
    DE DROITS ELECTRONIQUES
Patent Applicant/Assignee:
  INTERTRUST TECHNOLOGIES CORP,
Inventor(s):
  GINTER Karl L.
  SHEAR Victor H,
  SIBERT W Olin,
  SPAHN Francis J,
  VAN WIE David M,
Patent and Priority Information (Country, Number, Date):
  Patent:
                        WO 9809209 A1 19980305
                        WO 97US15243 19970829 (PCT/WO US9715243)
  Application:
  Priority Application: US 96706206 19960830
Designated States:
(Protection type is "patent" unless otherwise stated - for applications
prior to 2004)
  AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH HU
  IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL
  PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW GH KE LS MW SD
  SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES FI FR GB GR IE IT
  LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG
Publication Language: English
Fulltext Word Count: 195626
Main International Patent Class: G06F-001/00
Fulltext Availability:
  Detailed Description.
Detailed Description
... over the use
  of the invention's features. VDE also includes certain user
  - 20 providers, distributors, and users.
  Information distributed using VDE may take many forms.
  It may, for example, be "distributed" for use on an individual's
  own computer...the
  specific VDE installation and/or user), private key
  techniques such as triple DES to encrypt content,
  public key techniques such as RSA to protect
  communications and to provide the benefits of
  digital signature...assembly.
  One of the load modules 1100b shown in this example is
  itself compnised of plural load modules 1100c, 1100d. Some of
  the load modules @ e. cr., 1 100a, 1 100d...
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14/3,K/55

DIALOG(R) File 349: PCT FULLTEXT

(Item 13 from file: 349)

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(c) 2005 WIPO/Univentio. All rts. reserv.
            **Image available**
PROTECTION OF DATABASE CONTENTS AGAINST USE WITHOUT PERMIT
PROTECTION DU CONTENU DE BASE DE DONNEES CONTRE DES UTILISATIONS NON
   AUTORISEES
Patent Applicant/Assignee:
  SIGBJORNSEN Sigurd,
  HAGLUND Magne Arild,
  OLESHCHUK Vladimir A,
Inventor(s):
  SIGBJORNSEN Sigurd,
  HAGLUND Magne Arild,
  OLESHCHUK Vladimir A,
Patent and Priority Information (Country, Number, Date):
  Patent:
                        WO 9803904 A1 19980129
  Application:
                        WO 97NO185 19970717 (PCT/WO NO9700185)
  Priority Application: NO 962997 19960718
Designated States:
(Protection type is "patent" unless otherwise stated - for applications
prior to 2004)
  AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH HU
  IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL
  PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW GH KE LS MW
  SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES FI FR GB GR IE
  IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG
Publication Language: English
Fulltext Word Count: 8145
Main International Patent Class: G06F-001/00
International Patent Class: G06F-17:30
Fulltext Availability:
  Detailed Description
Detailed Description
... card, for example, which may be denoted a master key, or be encrypted
  using the secret key , such as with symmetric cryptographic systems,
  e.g. DES. Only when the parameters are decrypted...admitted to more than
  one "information 1 5 layer" in the database (by authorization at
  multiple levels) the keys are transferred in encrypted form to the
  tamperproof unit which then decrypts the key data by means of the...
 14/3,K/56
               (Item 14 from file: 349)
DIALOG(R) File 349: PCT FULLTEXT
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00344642
SYSTEMS AND METHODS FOR SECURE TRANSACTION MANAGEMENT AND ELECTRONIC RIGHTS
    PROTECTION
SYSTEMES ET PROCEDES DE GESTION SECURISEE DE TRANSACTIONS ET DE PROTECTION
    ELECTRONIQUE DES DROITS
Patent Applicant/Assignee:
  ELECTRONIC PUBLISHING RESOURCES INC,
Inventor(s):
  GINTER Karl L,
  SHEAR Victor H,
  SPAHN Francis J,
  VAN WIE David M,
Patent and Priority Information (Country, Number, Date):
```

Patent: WO 9627155 A2 19960906
Application: WO 96US2303 19960213 (PCT/WO US9602303)
Priority Application: US 95388107 19950213
Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AL AM AT AU AZ BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU IS JP KE KG KP KR KZ LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG UZ VN KE LS MW SD SZ UG AZ BY KG KZ RU TJ TM AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG

Publication Language: English Fulltext Word Count: 207972

Main International Patent Class: G06F-001/00 International Patent Class: G06F-17:60

Fulltext Availability: Detailed Description

Detailed Description

?

... in place and/or by negotiation between concurrently proposed content control information submitted by a **plurality** of parties. A given model may be asynchronously and progressively modified over time in accordance...

Sylvia Keys

15/TI/1 (Item 1 from file: 347)

DIALOG(R) File 347: (c) 2005 JPO & JAPIO. All rts. reserv.

METHOD AND DEVICE FOR MANAGING DATA

15/TI/2 (Item 2 from file: 347)

DIALOG(R) File 347: (c) 2005 JPO & JAPIO. All rts. reserv.

DATA MANAGEMENT SYSTEM

15/TI/3 (Item 3 from file: 347)

DIALOG(R) File 347: (c) 2005 JPO & JAPIO. All rts. reserv.

DATA COPYRIGHT MANAGEMENT DEVICE

15/TI/4 (Item 4 from file: 347)

DIALOG(R) File 347: (c) 2005 JPO & JAPIO. All rts. reserv.

DIGITAL INFORMATION MANAGEMENT APPARATUS

15/TI/5 (Item 5 from file: 347)

DIALOG(R) File 347: (c) 2005 JPO & JAPIO. All rts. reserv.

AUTHENTICATION SYSTEM

15/TI/6 (Item 6 from file: 347)

DIALOG(R) File 347: (c) 2005 JPO & JAPIO. All rts. reserv.

BICYCLE LOCKING DEVICE

15/TI/7 (Item 7 from file: 347)

DIALOG(R) File 347: (c) 2005 JPO & JAPIO. All rts. reserv.

REMOTE CONTROL LOCK

15/TI/8 (Item 8 from file: 347)

DIALOG(R) File 347: (c) 2005 JPO & JAPIO. All rts. reserv.

DATA CONTENTS DISTRIBUTION SYSTEM

15/TI/9 (Item 9 from file: 347)

DIALOG(R)File 347:(c) 2005 JPO & JAPIO. All rts. reserv.

COPYRIGHT MANAGING DEVICE

15/TI/10 (Item 10 from file: 347)

DIALOG(R) File 347: (c) 2005 JPO & JAPIO. All rts. reserv.

DATA COPYRIGHT MANAGEMENT SYSTEM

15/TI/11 (Item 11 from file: 347)
DIALOG(R)File 347:(c) 2005 JPO & JAPIO. All rts. reserv.

DATA COPYRIGHT MANAGEMENT DEVICE

15/TI/12 (Item 1 from file: 350)
DIALOG(R)File 350:(c) 2005 Thomson Derwent. All rts. reserv.

Key management method for use in data copyright management system, involves decrypting copyrighted primary data to plain text using primary use permit key, and receiving secondary use permit key for editing data

15/TI/13 (Item 2 from file: 350)
DIALOG(R)File 350:(c) 2005 Thomson Derwent. All rts. reserv.

Digital content copyright protecting system for electronic commerce, provides crypt key for encrypting, decrypting, re-encrypting or re-decrypting contents while performing encrypting/re-encrypting of contents

15/TI/14 (Item 3 from file: 350)
DIALOG(R)File 350:(c) 2005 Thomson Derwent. All rts. reserv.

Data content dealing method in data management system, involves transferring encrypted editing scenario and secret key to other user, where it is further decrypted to reconstitute edited data content

15/TI/15 (Item 4 from file: 350)
DIALOG(R)File 350:(c) 2005 Thomson Derwent. All rts. reserv.

Copyright control system for use with computer - encrypts or decrypts information using key obtained from copyright control centre for primary utilisation of encrypted digital information

15/TI/16 (Item 5 from file: 350)
DIALOG(R)File 350:(c) 2005 Thomson Derwent. All rts. reserv.

Data copyright management system using key distribution for transfer to secondary user - has key control centre and uses primary copyright label and primary use permit key, latter including first encryption key for primary data, second encryption key for editing data and third key for secondary use

15/TI/17 (Item 6 from file: 350)
DIALOG(R)File 350:(c) 2005 Thomson Derwent. All rts. reserv.

Crypt key system esp. for copyright protection or management in television broadcasting or online database - uses secret key and public key encryption methods as well as digital signature with crypt keys supplied through broadcast being optionally encrypted

15/TI/18 (Item 7 from file: 350)
DIALOG(R)File 350:(c) 2005 Thomson Derwent. All rts. reserv.

Copyright control method for encrypted digital data for database system - adding utilisation permit key to digital data to allow user to decrypt data and process it in accordance with display, edit, storage, copy and transfer permit parts

15/TI/19 (Item 1 from file: 348)
DIALOG(R) File 348: (c) 2005 European Patent Office. All rts. reserv.

Key management method and apparatus Verfahren und Gerat zur Schlusselverwaltung Procede et dispositif pour la gestion de cles

15/TI/20 (Item 2 from file: 348)
DIALOG(R) File 348: (c) 2005 European Patent Office. All rts. reserv.

Method for data copyright control Verfahren zur Steuerung der Datenurheberrecht Procede de controle du droit d'auteur de donnees

15/TI/21 (Item 3 from file: 348)
DIALOG(R)File 348:(c) 2005 European Patent Office. All rts. reserv.

METHOD AND DEVICE FOR PROTECTING DIGITAL DATA BY DOUBLE RE-ENCRYPTION VERFAHREN UND VORRICHTUNG ZUM SCHUTZ DIGITALER DATEN MITTELS DOPPELTER WIEDERVERSCHLUSSELUNG

PROCEDE ET DISPOSITIF DESTINES A PROTEGER DES DONNEES NUMERIQUES PAR DOUBLE RECRYPTAGE

15/TI/22 (Item 4 from file: 348)
DIALOG(R)File 348:(c) 2005 European Patent Office. All rts. reserv.

Digital copyright management system using electronic watermark
Urheberrechtsdatenverwaltungssystem mit elektronischem Wasserzeichen
Systeme de gestion de donnees de droits d'auteurs avec une filigraine
electronique

15/TI/23 (Item 5 from file: 348)
DIALOG(R)File 348:(c) 2005 European Patent Office. All rts. reserv.

Data copyright management system and apparatus
Dateiurheberrechte-Verwaltungssystem und -vorrichtung
Systeme et dispositif de gestion de droits d'auteur de donnees

15/TI/24 (Item 6 from file: 348)
DIALOG(R)File 348:(c) 2005 European Patent Office. All rts. reserv.

Data content dealing system System zum Behandeln von Dateninhalten Systeme de transaction de contenu de donnees

15/TI/25 (Item 7 from file: 348)
DIALOG(R)File 348:(c) 2005 European Patent Office. All rts. reserv.

Secure data management system Gesichertes Datenverwaltungssystem Systeme securise de gestion de donnees

15/TI/26 (Item 8 from file: 348)
DIALOG(R) File 348: (c) 2005 European Patent Office. All rts. reserv.

Copyright control system Urheberrechtskontrollsystem Systeme de controle de droits d'auteur

15/TI/27 (Item 9 from file: 348)
DIALOG(R)File 348:(c) 2005 European Patent Office. All rts. reserv.

System for data copyright management using key distribution

System zur Datenurheberrechtsverwaltung unter Verwendung von Schlusselverteilung

Systeme de gestion de droits d'auteur de donnees utilisant une distribution de cle

15/TI/28 (Item 10 from file: 348)
DIALOG(R)File 348:(c) 2005 European Patent Office. All rts. reserv.

Crypt key system for secure electronic transactions Verschlusselungssystem fur sichere elektronische Transaktionen Systeme de cryptage pour des transactions electroniques securisees

15/TI/29 (Item 11 from file: 348)
DIALOG(R)File 348:(c) 2005 European Patent Office. All rts. reserv.

Apparatus for data copyright management system Gerat fur Dateiurheberrechte-Verwaltungssystem Appareil pour systeme de gestion de droits d'auteur de donnees 15/TI/30 (Item 12 from file: 348)
DIALOG(R)File 348:(c) 2005 European Patent Office. All rts. reserv.

Data copyright management system
Urheberrechtsdatenverwaltungssystem
Systeme de gestion de donnees de droits d'auteurs

15/TI/31 (Item 13 from file: 348)
DIALOG(R)File 348:(c) 2005 European Patent Office. All rts. reserv.

Data copyright management system

Datenurheberrechtsverwaltungssystem

Systeme de gestion des droits d'auteur de donnees

15/TI/32 (Item 14 from file: 348)
DIALOG(R) File 348: (c) 2005 European Patent Office. All rts. reserv.

Method for controlling copyright of encrypted digital data

Verfahren um die Urheberrechte von verschlusselten numerischen Daten zu kontrollieren

Procede pour controler les droits d'auteur de donnees numeriques chiffrees

15/TI/33 (Item 1 from file: 349)
DIALOG(R) File 349: (c) 2005 WIPO/Univentio. All rts. reserv.

SYSTEM FOR PROTECTING BOTH COPYRIGHTS AND FAIR-USE RIGHTS AT THE SAME TIME SYSTEM FOR PROTECTING BOTH COPYRIGHTS AND FAIR-USE RIGHTS AT THE SAME TIME

SYSTEME PROTEGEANT EN MEME TEMPS A LA FOIS LES DROITS D'AUTEUR ET LES DROITS D'UTILISATION EQUITABLE

15/TI/34 (Item 2 from file: 349)
DIALOG(R)File 349:(c) 2005 WIPO/Univentio. All rts. reserv.

SECURE DISTRIBUTION OF DIGITAL REPRESENTATIONS DISTRIBUTION SECURISEE DE REPRESENTATIONS NUMERIQUES ?